# KUNDENDIENST

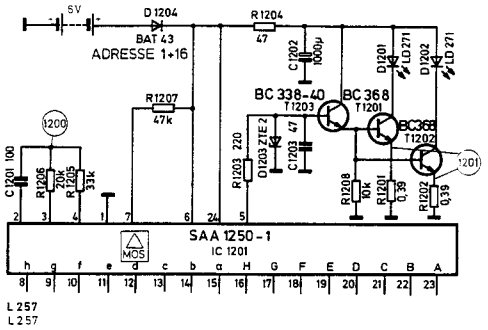
ITT Graetz

SERVICE

**IR-Empfänger, IFB 491** 5883 14 45 (D, F)
**IR receiver, IFB 491** 5883 14 70 (H)
**Recepteur IR, TCI 491**
**Ricevitore comando IR, IFB 491**

**IR-Empfänger, IFB 491** 5883 14 46 (UK)
**IR receiver, IFB 491** 5883 14 71 (UK/IRL)
**Recepteur IR, TCI 491**
**Ricevitore comando IR, IFB 491**

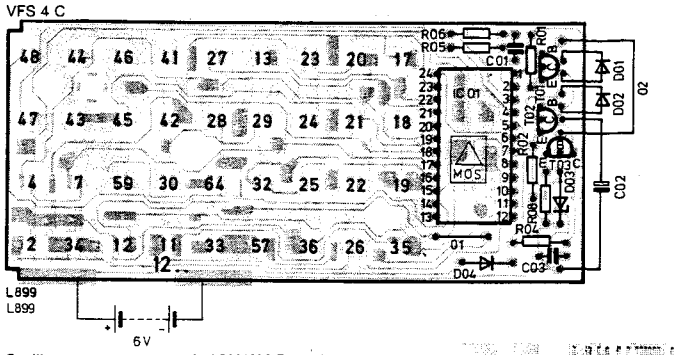
**C 28a**




## IR-Sender / Transmitter / Émetteur / Trasmettitore

5652 09 73 (VFS 4), 5652 09 74 (VFS 4 F), 5652 09 77 (VFS 4 C)

VFS 4 C

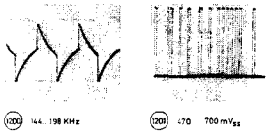



| Funktion · Function<br>Fonction · Funzione | | Befehl<br>Command<br>Command.<br>Comando | Anschlußpunkte<br>Pin connections<br>Points de connexion<br>Punti de la colleg. |
|---|---|---|---|
| D | F | | |
| ⏻ | ⏻ | 2 | 15 a – 22 B |
| ● | ● | 4 | 15 a – 20 D |
| 🔇 | 🔇 | 7 | 15 a – 17 G |
| ☰◕ | ☰? | 11 | 14 b – 21 C |
| ☰? | | 12 | 14 b – 20 D |
| ☰X | ☰M | 13 | 14 b – 19 E |
| 1 | 1 | 17 | 13 c – 23 A |
| 2 | 2 | 18 | 13 c – 22 B |
| 3 | 3 | 19 | 13 c – 21 C |
| 4 | 4 | 20 | 13 c – 20 D |
| 5 | 5 | 21 | 13 c – 19 E |
| 6 | 6 | 22 | 13 c – 18 F |
| 7 | 7 | 23 | 13 c – 17 G |
| 8 | 8 | 24 | 13 c – 16 H |
| 9 | 9 | 25 | 12 d – 23 A |
| O/AV | O/AV | 26 | 12 d – 22 B |
| ☰◈ | ⊞☰ | 27 | 12 d – 21 C |
| ☰– | ☰▷ | 28 | 12 d – 20 D |
| ☰⌧ | ▭ | 29 | 12 d – 19 E |
| ▭☰ | | 30 | 12 d – 18 F |
| ☰i | ☰i | 32 | 12 d – 16 H |
| ▭ | ▭ | 33 | 11 e – 23 A |
| ⏻ ☰» | C ☰X | 34 | 11 e – 22 B |
| – – | – – | 35 | 11 e – 21 C |
| ⊞☰ | | 41 | 10 f – 23 A |
| ☰▷ | | 42 | 10 f – 22 B |
| ÷○÷ + | ÷○÷ + | 43 | 10 f – 21 C |
| ÷○÷ – | ÷○÷ – | 44 | 10 f – 20 D |
| ○◑● + | ○◑● + | 45 | 10 f – 19 E |
| ○◑● – | ○◑● – | 46 | 10 f – 18 F |
| ◄ + | ◄ + | 47 | 10 f – 17 G |
| ◄ – | ◄ – | 48 | 10 f – 16 H |
| ☰ | ☰ | 57 | 8 h – 23 A |
| C | C | 64 | 8 h – 16 H |

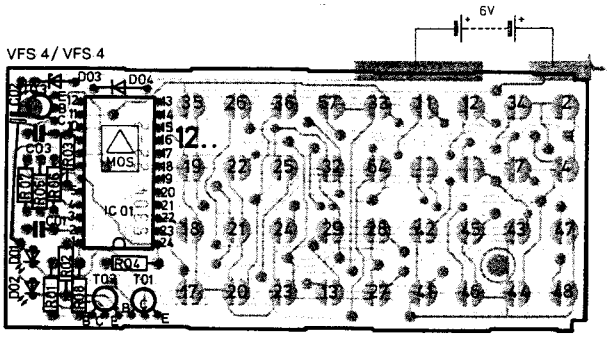
Oszillogramme gemessen bei 9 V (6 V) Batteriespannung und Oszillograf mit 10 pF/10 MΩ Eingang.

Oscillograms measured with a 9-volt (6-volt) battery voltage and oscillograph with 10 pF/10 MΩ input.

Oscillogramma rilevato a 9 Volt (6 Volt) di tensione della batteria e oscillografo con 10 pF/10 MΩ all'entrata.




VFS 4 / VFS 4




### Ausbauhinweis

Schraube in der Gehäuseunterschale entfernen. Batteriedeckel A abnehmen und Batterien entfernen. Fingernagel – oder Schraubenzieher – oberhalb des Fensters B eindrücken und **gleichzeitig** die untere Gehäuseschale in Pfeilrichtung schieben und abnehmen.

### Important hint for disassembly

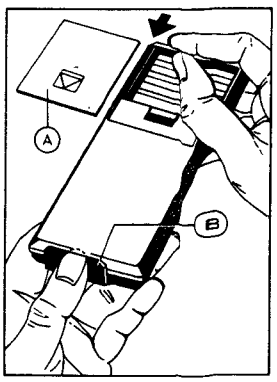
Remove the screw in the lower cabinet half. Remove the battery compartment lid A and the batteries. Insert a screwdriver (or fingernail) in the slot above window B and, **at the same time,** slide the lower casing in the direction of the arrow and withdraw.

### Instructions de démontage

Dévisser la vis de la partie base de boîtier. Enlever le couvercle de la batterie A et ôter les piles. Exercer une pression au-dessus de l'ouverture B au moyen d'un ongle ou d'un tournevis et faire glisser **en même temps** la partie inférieure du boîtier dans la direction indiquée par la flèche pour l'enlever.

### Indicazioni per il completamento

Togliere la vite nel semicuscinetto inferiore della scatola. Sollevare il coperchio della batteria A e togliere le batterie. Premere con un'unghia od un cacciavite al di sopra dell'apertura B e spingere **contemporaneamente** il semicarter inferiore nella direzione indicata dalla freccia per togliere il coperchio.




**Schutzmaßnahmen für MOS-Bauelemente beachten!**
**Pay attention to protective measures for MOS components!**
**Respecter les mesures de protections pour les composants de MOS!**
**Osservare le misure protettive per gli elementi costruttivi MOS!**

Bei Nachbestellungen von Manualen, Gerätetyp und Geräte-Ident-Nummer angeben.
When re-ordering manuals, please quote the model name and part number.
En cas de commande supplémentaire de manuels veuillez indiquer le type et le numéro de l'appareil.
Per riordinare i manuali, indicare il modello dell'apparecchio ed il numero categorico.

# KUNDENDIENST

ITT Graetz

SERVICE

**Chassis Compact B-90°-NN**
5861 75 12

**Chassis Compact B-110°-S4/SQ**
5861 75 01

**A 16a**

## Ersatzteile
## Replacement parts list
## Pièces de rechange
## Ricambi

**PAL SECAM Decoder (CB)** 6911 30 30
**PAL Decoder (CB)** 6911 30 26

**Bildröhrenanschlußplatte** 6911 39 50
**C.R.T. base board**
**Platine-connexion tube-cathodique**
**Piastra di allac. del cinescopio**

## Erläuterungen zu den Schaltbildern
## Circuit diagram legend
## Légendes des schémas
## Spiegazioni dei simboli usati sullo schema

Baugruppen außerhalb des Chassis / Sub-assemblies outside the chassis / Groupes en dehors du châssis / Moduli al di fuori dello chassis

Schaltnetzteil-Minuspotential / Switch-moded power supply minus potential / Rapport au potentiel négatif du bloc-d'alimentation à découpage / Collegamento della sezione di rete a potenziale negativo

Messungen auf ⊥ (Masse) bezogen / Measurements referenced to earth (⊥) / Toutes les mesures se rapportent à la masse / Riferire tutte le misure alla massa

Messungen auf Schaltnetzteil-Minuspotential bezogen / Measurements referenced to switch-moded power supply minus potential / Toutes les mesures se rapportant au potentiel négatif du bloc-secteur de commutation / Riferire tutte le misure al potenziale negativo della sezione di rete

Oszillogramm-Meßpunkt auf ⊥ (Masse) bezogen / Waveforms referenced to earth (⊥) / Tous les oszillogrammes se rapportant à la masse / Riferire tutti gli oscillogrammi alla massa

Oszillogramm-Meßpunkt auf Schaltnetzteil-Minuspotential bezogen / Waveforms referenced to switch-moded power supply minus potential / Tous le oszillogrammes se rapportant au potentiel négativ du bloc-secteur de commutation / Riferire tutti gli oscillogrammi al potenziale negativo della sezione di rete

Testpunkt. Im Text wird für die Testpunkte die Abkürzung "TP . . ." verwendet / Test point. The abbreviation "TP . . ." is used for the test points in the text / Point test. Dans le texte, les pints test sont désignés par l'abréviation «TP» / Punto di controllo. Nel testo i punti di controllo vengono determinati per mezzo di un «TP . . .»

⚠ **Sicherheitsbauteil im Sinn der Sicherheitsbestimmung. Diese Teile dürfen nur durch Originalteile ersetzt werden.**
**Safety components in accordance with existing regulations. These components must only be replaced by original component parts.**
**Composant de sécurite en accordance avec les régulations existantes. Ces composants dlovent être remplacés par des composants originaux.**
**Componente omologato in base alle norme di sicurezza. Questi pezzi devono essere sostituiti soltanto con pezzi originali.**

R 100 Chip-Widerstand / Resistor / Resistance-chip / Resistenza

C 100 Chip-Kondensator / Capacitor / Condensateur-chip / Condensatore

L 100 Chip-Spule/Drossel / Coil/Choke / Bobine/self-chip / Bobina

Br 100 Chip-Brücke / Jumper / Shunt-chip / Ponte

### Achtung
Bei Reparaturen unbedingt Trenntrafo benutzen und gültige Sicherheitsvorschriften beachten.
**Die Netzsicherung befindet sich auf dem Chassis.**

### Röntgenverordnung
Die in der Röntgenverordnung festgelegte Ortsdosisleistung ist bei diesem Gerät durch die Bildröhrentype und die maximal zulässige Hochspannung gewährleistet.
Die Hochspannung darf maximal 24 kV (Compact B-90°), 25 kV (Compact B-110°)betragen.
Die Hochspannung liegt im zulässigen Bereich, wenn die Betriebsspannung der Horizontal-Endstufe bei minimalem Strahlstrom 115 V (Compact B-90°), 145 V (Compact B-110°)beträgt.
Bei Reparaturen ist die Spannung zu überprüfen und gegebenenfalls mit R 612 auf Sollwert einzustellen.

### Attention!
Always use an isolating transformer for repair works and adhere to existing safety regulations.
**The power supply fuse is located on the chassis.**

### X-ray regulations
The picture tube type and the maximum permissible high-voltage ensure that the X-ray intensity within the set remains far below the permissible value.
The high-voltage must not exceed 24 kV (Compact B-90°), 25 kV (Compact B-110°).
The high-voltage is within the permissible limits when, at minimun beam current, the operating voltage of the horizontal deflection stage is 115 V (Compact B-90°), 145 V (Compact B-110°).
Following servicing, check and adjust this voltage to the nominal value with the R 612 (power supply section, if applicable).

### Attention!
Lors d'une réparation il faut utiliser un transformateur de séparation et réspecter les mesures de sécurité.
**Le fusible secteur se trouve sur le chassis.**

### Reglementation du Rayon X
Le dosage local du réglement du Rayon X est fixé par le tube cathodique équipé dans ce châssis et assuré par la valeur admissible de la haute tension maximale.
La haute tension doit avoir une valeur absolue de 24 kV (Compact B-90°), 25 kV (Compact B-110°).
La haute tension doit s'élever dans la marge admissible, lorsque l'alimentation de l'étage sortie de lignes pendant que le courant de faisceau minimum atteint 115 V (Compact B-90°), 145 V (Compact B-110°).
Lors de réparation, vérifier la tension et la ajuster au moyen du potentiomètre sur la valeur nominale (R 612).

### Attenzione!
In caso di riparazioni rispettare assolutamente le misure di sicurezza:
**Il fusibile di rete si trova sulla chassis.**

### Regolamento raggi X
La potenza prevista dalla disciplina raggi X per questo genere d'apparecchio viene garantita dal tipo di cinescopio e dalla tensione massima consentita.
La tensione massima deve comportare 24 kV (Compact B-90°), 25 kV (Compact B-110°) max.
La tensione massima si trova nei limiti consentiti se la tensione di esercizio della fase terminale-orrizontale comporta a corrente minima catodica 115 V (Compact B-90°), 145 V (Compact B-110°). Controllare, in caso di riparazioni, la tensione, e, all'occorrenza, mettere a punto, a valore nominale, mediante R 612.

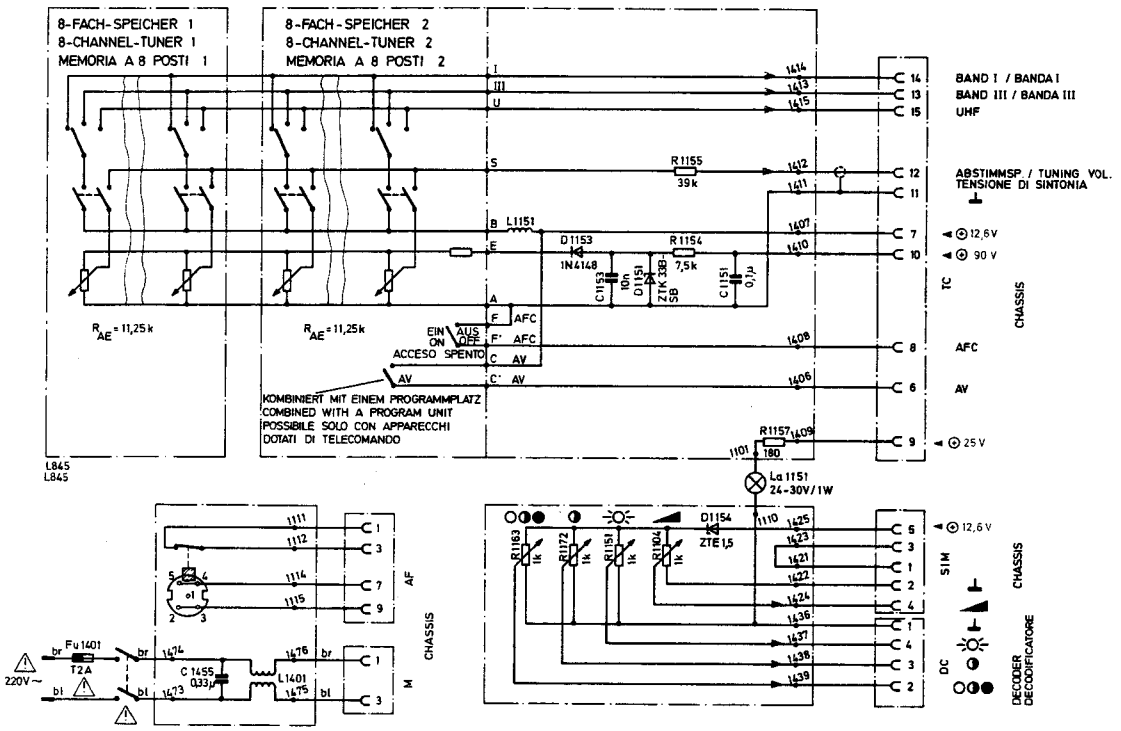
MOS **Schutzmaßnahmen für MOS-Bauelemente beachten!**
**Pay attention to protective measures for MOS components!**
**Respecter les mesures de protections pour les composants de MOS!**
**Osservare le misure protettive per gli elementi costruttivi MOS!**

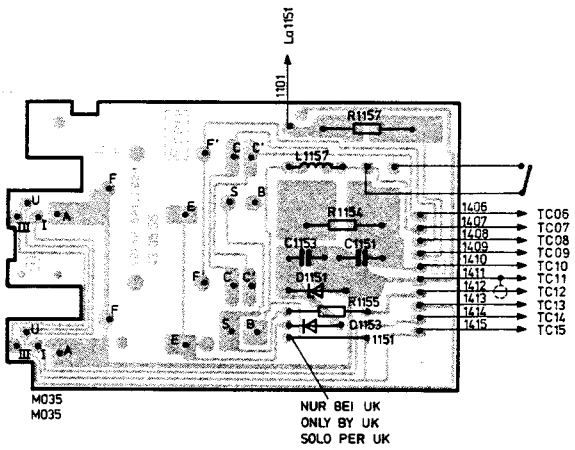
Bei Nachbestellungen von Manualen, Gerätetyp und Geräte-Ident-Nummer angeben.
When re-ordering manuals, please quote the model name and part number.
En cas de commande supplémentaire de manuels veuillez indiquer le type et le numéro de l'appareil.
Per riordinare i manuali, indicare il modello dell'apparecchio ed il numero categorico.

# Bedienteil, 16fach
# Operating controls unit, 16 fold
# Unité de commandes, 16-fois
# Elemento di comando, 16 parti

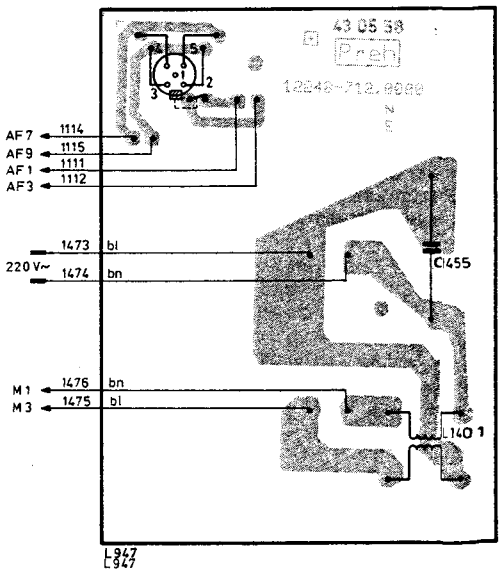
5883 26 36

**C 28a 1**

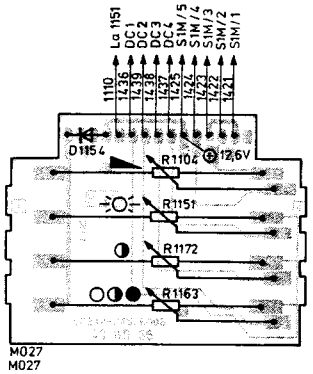



**Speicherplatte**
**Storage board**
**Plaque d'accumulation**
**Piastra di tension**




**Netzanschlußplatte**
**Mains connecting board**
**Plaque de raccordement**
**Rete piastra di collegamento**




**Potentiometerplatte**
**Potentiometer board**
**Plaque de potentiomètre**
**Piastra di potenziometro**

# Ersatzteile / Replacement parts list / Pièces de rechange / Elenco delle parti di ricambio

⚠ Sicherheitsbauteil im Sinn der Sicherheitsbestimmung. Diese Teile dürfen nur durch Originalteile ersetzt werden.
⚠ Safety components in accordance with existing regulations. These components must only be replaced by original component parts.
⚠ Composant de sécurité conformément aux réglementations de sécurité. Ces composants doivent être uniquement remplacés par des pièces d'origines.
⚠ Componenti di sicurezza ai sensi del regolamento di sicurezza. Queste componenti devono venir sostituite unicamente con parti originali.

| Gegenstand<br>Item<br>Pièce<br>Ricambi | Bestell-Nr.<br>Order no.<br>N° de com.<br>No. di rif. | Gegenstand<br>Item<br>Pièce<br>Ricambi | Bestell-Nr.<br>Order no.<br>N° de com.<br>No. di rif. |
|---|---|---|---|
| **Bedienteil, 16fach**<br>**Operating controls unit, 16 fold**<br>**Unité de commandes, 16-fois**<br>**Elemento di comando, 16 parti** | **5883 26 36** | | |
| Aufbauplatte<br>Mounting board<br>Plaque de montage<br>Piastra di montaggio | 8625 49 24 | | |
| 1. Abstimmeinheit, 8fach<br>1. Adjuster unit, 8 fold<br>1. Unité d'accord, 8-fois<br>1. Sint. delle parti di servizio, 8 parti | 3117 50 51 | | |
| 2. Abstimmeinheit, 8fach (AV-VCR)<br>2. Adjuster unit, 8 fold (AV-VCR)<br>2. Unité d'accord, 8-fois (AV-VCR)<br>2. Sint. delle parti di servizio, 8 parti (AV-VCR) | 3117 50 52 | | |
| **Netzanschlußplatte**<br>**Mains connecting board**<br>**Plaque de raccordement**<br>**Rete piastra di collegamento** | **6911 78 26** | | |
| Netzsicherung, T 2A<br>Mains fuse, delay T 2A<br>Fusible secteur, T 2A<br>Fusibile principale, T 2A | ⚠ 4375 16 18 | | |
| Netzkabel<br>Mains cable<br>Cordon d'alimentation<br>Cavo di distribuzione<br>für / for / pour / per 5883 26 36 | 4131 24 33 | | |
| Netzschalter<br>Mains switch<br>Commutateur principal<br>Interruttore principale | 4112 21 17 | | |
| Netztaste<br>Operating knob for mains<br>Touche secteur<br>Tasto di rete | 6315 34 03 | | |
| Kopfhörerbuchse<br>Headphone socket<br>Prise pour casque et magnétophone<br>Piastra di collegamento | 4144 01 45 | | |
| L 1401 Drossel / Choke<br>Bobine de self / Bobina | 4557 04 33 | | |
| **Potentiometerplatte**<br>**Potentiometer board**<br>**Plaque de potentiomètre**<br>**Piastra di potenziometro** | **6911 78 46** | | |
| R 1104 1 kΩ<br>R 1151 1 kΩ<br>D 1154 ZTE 1,5 | 3118 21 17<br>3118 21 13<br>3653 15 09 | | |
| **Speicherplatte**<br>**Storage board**<br>**Plaque d'accumulation**<br>**Piastra di tensione** | **6911 78 45** | | |
| Lichtführung<br>Lighting conduct.<br>Guidage de èclairage<br>Conduttore della illuminazione | 8624 08 03 | | |
| Anzeigelampe 24 V, 1 W<br>Miniature lamp 24 V, 1 W<br>Ampoule de cadran 24 V, 1 W<br>Spia luminosa 24 V, 1 W | 4354 16 02 | | |
| Skala<br>Scale<br>Cadran<br>Scala | 6462 02 12 | | |
| Programmtaste<br>Operating knob for station selection<br>Sélecteur de programme<br>Tasto di programma | 6312 71 42 | | |
| Abstimmschlüssel<br>Adjuster key<br>Clé d'accord<br>Chiare di regolazione | 8641 46 16 | Ersatzteil-<br>Bestellungen<br>Ø 07231/ 13338<br>Ø 07231/35 66 65<br>BTX-Ersatzteil-Bestellseite<br>☎ *4050065# | |

# Ersatzteile / Replacement parts list / Elenco delle parti di ricambio

Bei Ersatzteilbestellungen neben dem Gegenstand bitte unbedingt die Bestellnummer und bei Baugruppen (Modulen) auch die Baugruppennummer angeben!
When ordering spares please quote item and order number. When ordering (sub-)assemblies (modules), give the assembly number in addition!
Nelle ordinazioni di pezzi di ricambio è assolutamente indispensabile indicare l'oggetto ed il numero di riferimento e, nel caso di gruppi costruttivi (moduli), anche il numero del modulo!

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⚠ Componenti di sicurezza ai sensi del regolamento di sicurezza. Queste componenti devono venir sostituite unicamente con parti originali.

| Gegenstand<br>Item<br>Ricambi | Bestell-Nr.<br>Order no.<br>No. di rif. |
|---|---|
| **IDEAL COLOR 3416** | |
| Gehäuse, grau / Cabinet, grey / Mobile, grigio | 6112 38 35 |
| Gehäuse, nußbaumfarbig / Cabinet, walnut coloured<br>Mobile, color noce | 6112 38 24 |
| Frontplatte, grau / Front plate, grey<br>Frontale, grigio | 6416 35 60 |
| Frontplatte, nußbaumfarbig / Front plate, walnut coloured<br>Frontale, color noce | 6416 35 50 |
| Bedienteilklappe, grau / Operating unit lid, grey<br>Sportello dell'unità di comando, grigio | 8683 03 60 |
| Bedienteilklappe, nußbaumfarbig<br>Operating unit lid, walnut coloured<br>Sportello dell'unità di comando, color noce | 8683 03 58 |
| Blende, braun / Grille, brown / Copertura, marrone | 6416 18 18 |
| Blende, grau / Grille, grey / Copertura, grigio | 6416 18 21 |
| Die restlichen Ersatzteile siehe IDEAL COLOR 3426.<br>For other spares refer to model IDEAL COLOR 3426.<br>Per i pezzi di ricambio rimanenti vedi IDEAL COLOR 3426. | |
| **SCHAUB-LORENZ 6426** | |
| Gehäuse, grau / Cabinet, grey / Mobile, grigio | 6112 39 42 |
| Frontplatte, grau / Front plate, grey / Frontale, grigio | 6416 15 40 |
| Lautsprecherblende, grau<br>Loudspeaker grille, grey<br>Schermo altoparlante | 6411 47 34 |
| Bedienteilklappe, grau / Operating unit lid, grey<br>Sportello dell'unità di comando, grigio | 8687 01 94 |
| Lautsprecher 16 Ω, 4 W<br>Loudspeaker 16 Ω, 4 W<br>Altoparlante 16 Ω, 4 W | 4311 07 10 |
| Lautsprecher 16 Ω, 3 W<br>Loudspeaker 16 Ω, 3 W<br>Altoparlante 16 Ω, 3 W | 4311 09 16 |
| Die restlichen Ersatzteile siehe IDEAL COLOR 3426.<br>For other spares refer to model IDEAL COLOR 3426.<br>Per i pezzi di ricambio rimanenti vedi IDEAL COLOR 3426. | |
| **COLOR 4426**<br>**PAGE COLOR 4426** | |
| Gehäuse, grau / Cabinet, grey / Mobile, grigio (PAGE 4426) | 6112 39 35 |
| Gehäuse, grau / Cabinet, grey / Mobile, grigio (COLOR 4426) | 6112 39 38 |
| Frontplatte, grau / Front plate, grey / Frontale, grigio | 6416 19 47 |
| Bedienteilklappe, grau / Operating unit lid, grey<br>Sportello dell'unità di comando, grigio (PAGE 4426) | 8683 16 66 |
| Bedienteilklappe, grau / Operating unit lid, grey<br>Sportello dell'unità di comando, grigio (COLOR 4426) | 8687 01 90 |
| Anzeigeabdeckung / Indicator grille<br>Copertura dell indicator | 8683 13 62 |
| Fenster für Anzeigenabdeckung<br>Window for indicator grille<br>Finestra del coperchio dell'indicatore | 6466 37 17 |
| Lautsprecher 16 Ω, 4 W<br>Loudspeaker 16 Ω, 4 W<br>Altoparlante 16 Ω, 4 W | 4311 07 10 |
| Die restlichen Ersatzteile siehe IDEAL COLOR 3426.<br>For other spares refer to model IDEAL COLOR 3426.<br>Per i pezzi di ricambio rimanenti vedi IDEAL COLOR 3426. | |
| **IDEAL COLOR 3426** | |
| Gehäuse, nußbaumfarbig<br>Cabinet walnut coloured / Mobile, color noce | 6112 38 24 |
| Frontplatte, braun / Front plate, brown<br>Frontale, marrone | 6416 35 50 |
| Bedienteilklappe, braun / Operating unit lid, brown<br>Sportello dell'unità di comando, marrone | 8683 12 56 |
| Bedienteilklappenhalter / Holder for operating unit lid<br>Supporto della sportello dell'unità di comando | 8681 10 06 |
| Anzeigenabdeckung / Grille for indicator<br>Coperchio dell'indicatore | 8683 13 60 |

| Gegenstand<br>Item<br>Ricambi | Bestell-Nr.<br>Order no.<br>No. di rif. |
|---|---|
| Fenster für Anzeigenabdeckung<br>Window for indicator grille<br>Finestra del coperchio dell'indicatore | 6466 37 13 |
| Gehäusefuß, hinten / Cabinet foot, behind<br>Base del mobile, posteriore | 8641 01 47 |
| Fußstopfen / Pad / Piedino di appoccio | 8642 01 48 |
| Rückwand / Rear cover / Schienale | 6214 20 38 |
| Rückwandhalter / Holder for rear cover<br>Supporto della schienale | 8624 47 10 |
| Rückwandschrauben / Screw for rear cover<br>Viti della schienale | 7864 02 20 |
| Bildröhre A 56-701 X SEL<br>Picture tube A 56-701 X SEL<br>Cinescopio A 56-701 X SEL | ⚠ 4362 22 59 |
| Bildröhrenerdung / Earth for picture tube<br>Massa del cinescopio | 6141 03 04 |
| Entmagnetisierungsspule / Degaussing coil<br>Bobina di smagnetizzazione | ⚠ 4588 05 23 |
| Haken für Entmagnetisierungsspule<br>Hook for degaussing coil<br>Supporto del bobina di smagnetizzazione | 8681 72 13 |
| Lautsprecher 16 Ω, 4 W<br>Loudspeaker 16 Ω, 4 W<br>Altoparlante 16 Ω, 4 W | 4311 35 72 |
| Spannclip für Lautsprecher / Holder for loudspeaker<br>Supporto per altoparlante | 7368 01 96 |
| Chassisführung, links / Chassis conduct, left<br>Guida dello «chassis», sinistro | 8626 63 09 |
| Chassisführung, rechts / Chassis conduct, right<br>Guida dello «chassis», destra | 8626 63 13 |
| Halter für Farbdecoder / Holder for colour decoder<br>Supporto della dec. colore | 8625 47 02 |
| Halter für VT-Decoder / Holder for VT decoder<br>Supporto della dec. TELEVIDEO | 8625 48 05 |
| Netztaste / Mains pushbutton / Interruttore generale | 6315 36 07 |
| Netztaste / Mains pushbutton / Interruttore generale (COLOR 4426) | 6315 36 15 |
| Filter (IDEAL COLOR 3426 H) | 5888 01 07 |
| **IDEAL COLOR 3437** | |
| Gehäuse, grau / Cabinet, grey / Mobile, grigio | 6112 30 36 |
| Frontplatte, grau / Front plate, grey<br>Frontale, grigio | 6417 21 25 |
| Rechte Lautsprecherblende, grau<br>Loudspeaker grille for right, grey<br>Schermo altoparlante destro, grigio | 6411 46 78 |
| Bedienteilklappe, grau / Operating unit lid, grey<br>Sportello dell'unità di comando, grigio | 8683 16 55 |
| Bedienteilklappenhalter / Holder for operating unit lid<br>Supporto della sportello dell'unità di comando | 8681 10 06 |
| Anzeigenabdeckung / Grille for indicator<br>Coperchio dell'indicatore | 8683 13 79 |
| Fenster für Anzeigenabdeckung<br>Window for indicator grille<br>Finestra del coperchio dell'indicatore | 6466 37 31 |
| Gehäusefuß, hinten / Cabinet foot, behind<br>Base del mobile, posteriore | 8641 01 47 |
| Fußstopfen / Pad / Piedino di appoccio | 8642 01 48 |
| Rückwand / Rear cover / Schienale | 6214 24 66 |
| Rückwandhalter / Holder for rear cover<br>Supporto della schienale | 8624 47 10 |
| Rückwandschrauben / Screw for rear cover<br>Viti della schienale | 7864 02 20 |
| Bildröhre A 51 EAF 00 X 01<br>Picture tube A 51 EAF 00 X 01<br>Cinescopio A 51 EAF 00 X 01 | ⚠ 4362 21 01 |
| Bildröhrenerdung / Earth for picture tube<br>Massa del cinescopio | 6141 03 05 |
| Entmagnetisierungsspule / Degaussing coil<br>Bobina di smagnetizzazione | ⚠ 4588 05 61 |
| Haken für Entmagnetisierungsspule<br>Hook for degaussing coil<br>Supporto del bobina di smagnetizzazione | 8681 72 14 |

# Ersatzteile / Replacement parts list / Elenco delle parti di ricambio

| Gegenstand<br>Item<br>Ricambi | Bestell-Nr.<br>Order no.<br>No. di rif. |
|---|---|
| Lautsprecher 16 Ω, 4 W<br>Loudspeaker 16 Ω, 4 W<br>Altoparlante 16 Ω, 4 W | 4311 07 10 |
| Spannclip für Lautsprecher / Holder for loudspeaker<br>Supporto per altoparlante | 7368 01 96 |
| Chassishalter, links / Chassis holder, left<br>Guida dello «chassis», sinistro | 8625 11 38 |
| Chassishalter, rechts / Chassis holder, right<br>Guida dello «chassis», destra | 8625 11 41 |
| Halter für Farbdecoder / Holder for colour decoder<br>Supporto della dec. colore | 8625 47 04 |
| Halter für VT-Decoder / Holder for VT decoder<br>Supporto della dec. TELEVIDEO | 8625 48 05 |
| Netztaste / Mains pushbutton / Interruttore generale | 6315 36 07 |
| **IDEAL COLOR 3537** | |
| Gehäuse, grau / Cabinet, grey / Mobile, grigio | 6112 27 23 |
| Frontplatte, grau / Front plate, grey / Frontale, grigio | 6417 24 56 |
| Rechte Lautsprecherblende, grau<br>Loudspeaker grille for right, grey<br>Schermo altoparlante destro, grigio | 6411 47 69 |
| Bedienteilklappe, grau / Operating unit lid, grey<br>Sportello dell'unità di comando, grigio | 8683 16 55 |
| Bedienteilklappenhalter / Holder for operating unit lid<br>Supporto della sportello dell'unità di comando | 8681 10 06 |
| Anzeigenabdeckung / Grille for indicator<br>Coperchio dell'indicatore | 8683 13 79 |
| Fenster für Anzeigenabdeckung<br>Window for indicator grille<br>Finestra del coperchio dell'indicatore | 6466 37 31 |
| Gehäusefuß, hinten / Cabinet foot, behind<br>Base del mobile, posteriore | 8641 01 47 |
| Fußstopfen / Pad / Piedino di appoccio | 8642 01 48 |
| Rückwand / Rear cover / Schienale | 6214 25 33 |
| Rückwandhalter / Holder for rear cover<br>Supporto della schienale | 8624 47 10 |
| Rückwandschrauben / Screw for rear cover<br>Viti della schienale | 7864 02 20 |
| Bildröhre A 59 EAF 00 X 01<br>Picture tube A 59 EAF 00 X 01<br>Cinescopio A 59 EAF 00 X 01 | ⚠ 4362 24 50 |
| Bildröhrenerdung / Earth for picture tube<br>Massa del cinescopio | 6141 03 05 |
| Entmagnetisierungsspule / Degaussing coil<br>Bobina di smagnetizzazione | ⚠ 4588 05 24 |
| Haken für Entmagnetisierungsspule<br>Hook for degaussing coil<br>Supporto del bobina di smagnetizzazione | 8681 72 13 |
| Lautsprecher 16 Ω, 4 W<br>Loudspeaker 16 Ω, 4 W<br>Altoparlante 16 Ω, 4 W | 4311 07 10 |
| Spannclip für Lautsprecher / Holder for loudspeaker<br>Supporto per altoparlante | 7368 01 96 |
| Chassisführung, links / Chassis conduct, left<br>Guida dello «chassis», sinistro | 8626 63 09 |
| Chassisführung, rechts / Chassis conduct, right<br>Guida dello «chassis», destra | 8626 63 13 |
| Halter für Farbdecoder / Holder for colour decoder<br>Supporto della dec. colore | 8625 47 04 |
| Halter für VT-Decoder / Holder for VT decoder<br>Supporto della dec. TELEVIDEO | 8625 48 05 |
| Netztaste / Mains pushbutton / Interruttore generale | 6315 36 07 |
| Filter (IDEAL COLOR 3537 H) | 5888 01 07 |
| **SCHAUB-LORENZ 6726** | |
| Gehäuse, grau / Cabinet grey / Mobile, grigio | 6112 75 29 |
| Frontplatte, grau / Front plate, grey<br>Frontale, grigio | 6416 35 59 |
| Bedienteilklappe, grau / Operating unit lid, grey<br>Sportello dell'unità di comando, grigio | 8687 01 94 |
| Anzeigenabdeckung / Grille for indicator<br>Coperchio dell'indicatore | 8683 13 62 |
| Fenster für Anzeigenabdeckung<br>Window for indicator grille<br>Finestra del coperchio dell'indicatore | 6466 37 15 |
| Lautsprecher 16 Ω, 4 W<br>Loudspeaker 16 Ω, 4 W<br>Altoparlante 16 Ω, 4 W | 4311 07 10 |
| Lautsprecher 4 Ω, 3 W<br>Loudspeaker 4 Ω, 3 W<br>Altoparlante 4 Ω, 3 W | 4311 09 16 |

| Gegenstand<br>Item<br>Ricambi | Bestell-Nr.<br>Order no.<br>No. di rif. |
|---|---|
| Lautsprecherblende / Loudspeaker grille<br>Coperchio dell altoparlante | 6411 47 41 |
| Netztaste / Mains pushbutton / Interruttore generale | 6315 36 15 |
| Die restlichen Ersatzteile siehe IDEAL COLOR 3726.<br>For other spares refer to model IDEAL COLOR 3726.<br>Per i pezzi di ricambio rimanenti vedi IDEAL COLOR 3726. | |
| **COLOR 4726**<br>**LORD COLOR 4726** | |
| Gehäuse, grau / Cabinet, grey / Mobile, grigio (LORD 4726) | 6112 75 03 |
| Gehäuse, grau / Cabinet, grey / Mobile, grigio (COLOR 4726) | 6112 75 25 |
| Gehäuse, nußbaumfarbig / Cabinet, walnut coloured<br>Mobile, color noce | 6112 75 08 |
| Frontplatte, grau / Front plate, grey / Frontale, grigio (LORD 4726) | 6416 32 49 |
| Frontplatte, grau / Front plate, grey / Frontale, grigio (COLOR 4726) | 6416 32 47 |
| Frontplatte, nußbaumfarbig / Front plate, walnut coloured<br>Frontale, color noce | 6416 32 55 |
| Bedienteilklappe, grau / Operating unit lid, grey<br>Sportello dell'unità di comando, grigio (LORD 4726) | 8683 16 68 |
| Bedienteilklappe, grau / Operating unit lid, grey<br>Sportello dell'unità di comando, grigio (COLOR 4726) | 8687 01 90 |
| Bedienteilklappe, nußbaumfarbig<br>Operating unit lid, walnut coloured<br>Sportello dell'unità di comando, color noce | 8683 16 69 |
| Anzeigeabdeckung / Indicator grille<br>Copertura dell indicator | 8683 13 62 |
| Fenster für Anzeigenabdeckung<br>Window for indicator grille<br>Finestra del coperchio dell'indicatore | 6466 37 17 |
| Lautsprecher 16 Ω, 4 W<br>Loudspeaker 16 Ω, 4 W<br>Altoparlante 16 Ω, 4 W | 4311 07 10 |
| Die restlichen Ersatzteile siehe IDEAL COLOR 3726.<br>For other spares refer to model IDEAL COLOR 3726.<br>Per i pezzi di ricambio rimanenti vedi IDEAL COLOR 3726. | |
| **IDEAL COLOR 3726**<br>**IDEAL COLOR 3726 H** | |
| Gehäuse, nußbaumfarbig / Cabinet walnut coloured<br>Mobile, color noce | 6112 57 18 |
| Frontplatte, braun / Front plate, brown<br>Frontale, marrone | 6416 13 41 |
| Bedienteilklappe, braun / Operating unit lid, brown<br>Sportello dell'unità di comando, marrone | 8683 12 56 |
| Bedienteilklappenhalter / Holder for operating unit lid<br>Supporto della sportello dell'unità di comando | 8681 10 06 |
| Anzeigenabdeckung / Grille for indicator<br>Coperchio dell'indicatore | 8683 13 60 |
| Fenster für Anzeigenabdeckung<br>Window for indicator grille<br>Finestra del coperchio dell'indicatore | 6466 37 13 |
| Gehäusefuß, hinten / Cabinet foot, behind<br>Base del mobile, posteriore | 8641 01 47 |
| Fußstopfen / Pad / Piedino di appoccio | 8642 01 48 |
| Rückwand / Rear cover / Schienale | 6214 21 50 |
| Rückwandhalter / Holder for rear cover<br>Supporto della schienale | 8624 47 10 |
| Rückwandschrauben / Screw for rear cover<br>Viti della schienale | 7864 02 20 |
| Bildröhre A 67-701 X SEL<br>Picture tube A 67-701 X SEL<br>Cinescopio A 67-701 X SEL | ⚠ 4362 27 01 |
| Bildröhrenerdung / Earth for picture tube<br>Massa del cinescopio | 6141 03 05 |
| Entmagnetisierungsspule / Degaussing coil<br>Bobina di smagnetizzazione | ⚠ 4588 05 24 |
| Haken für Entmagnetisierungsspule<br>Hook for degaussing coil<br>Supporto del bobina di smagnetizzazione | 8681 72 15 |
| Lautsprecher 16 Ω, 4 W<br>Loudspeaker 16 Ω, 4 W<br>Altoparlante 16 Ω, 4 W | 4311 35 72 |
| Spannclip für Lautsprecher / Holder for loudspeaker<br>Supporto per altoparlante | 7368 01 96 |
| Chassisführung, links / Chassis conduct, left<br>Guida dello «chassis», sinistro | 8626 63 09 |
| Chassisführung, rechts / Chassis conduct, right<br>Guida dello «chassis», destra | 8626 63 13 |

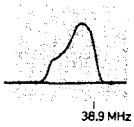
# Abgleichempfehlung

## Erforderliche Meßgeräte

| | |
|---|---|
| Wobbelsender mit Markengeber: | 3...42 MHz, ca. 200 mV |
| Meßsender: | 4... 6 MHz, ca. 200 mV, Hub f = ± 15 kHz, fmod = 1 kHz |
| Oszillograph: | Empfindlichkeit 10 mV/cm...2 V/cm |
| Vorspannungsgerät: | einstellbar von 0...4,5 V, niederohmig |
| Differenzvoltmeter: | Ri ≥ 1 MΩ |

## Vorbereitungen

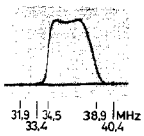
Betriebsspannung 12 V ± 10% an TZ 23
Vorspannung an TP 206, TP 217 und TP 211
Kerne müssen am oberen Spulenende stehen.




1. **Bild-ZF-Stufe**

1.1 Referenzkreis
Wobbler über HF-Übertrager (4 : 1) symmetrisch an TP 203 und TP 204 ca. 200 mV. Meßsch. ①
Oszillograph an TZ 24
Amplitude mit Vorspannung an TP 206 auf ca. 450 mV halten. Frequenzmarke 38,9 MHz mit L 211 auf max. Amplitude abgleichen.

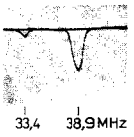
1.2 Kontrolle des Frequenzgangs
Anschluß von Wobbler und Oszillograph wie unter 1.1 Meßschaltung ①.
TP 209 mit TP 208 und TP 208 mit TP 207 über je 47 Ω verbinden. Meßschaltung ③.
Frequenzmarke 38 MHz mit Vorspannung an TP 206 auf 1 V, entspricht 0 dB, einstellen.
Frequenzmarke 38,9 MHz soll zwischen –5 dB und –7 dB,
Frequenzmarke 34,5 MHz zwischen –3 dB und –5 dB liegen.



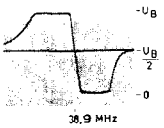

1.3 Kontrolle des Videosignals
Empfang eines normgerechten Fernsehsenders der Norm B/G. Videoausgangsspannung muß 2 $V_{ss}$ ± 0,2 V betragen.

2. **DF-Stufe**

2.1 Referenzkreis
Wobbler über HF-Übertrager (4 : 1) symmetrisch an TP 203 und TP 204 ca. 200 mV. Meßschaltung ①.
Oszillograph an TP 210.
Amplitude bei 38,9 MHz mit Vorspannung an TP 217 auf ca. 200 mV halten.
Frequenzmarke 38,9 MHz mit L 231 auf max. Amplitude abgleichen.



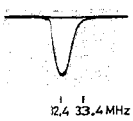

2.2 Nachstimmautomatik
Wobbler wie unter 2.1 anschließen Meßschaltung ①; Wobbelhub ≤ 0,5 MHz.
Oszillograph an TP 205
Vorspannung an TP 217 entfernen; TZ 29 muß frei sein.
Frequenzmarke 38,9 MHz mit L 232 auf Nulldurchgang abgleichen.




2.3 Kontrolle der AFC-Feinverstimmung
An TZ 29 eine Spannung einstellbar von 2...10 V legen. Der Nulldurchgang der S-Kurve muß sich um ± > 250 kHz ändern.

3. **AM-ZF-Stufe**

3.1 ZF-Filter und Referenzkreis
Wobbler über HF-Übertrager (4 : 1) symmetrisch an TP 203 und TP 204 ca. 200 mV. Meßschaltung ①.
Oszillograph an TP 212
Amplitude bei 32,4 MHz mit Vorspannung an TP 211 auf ≤ 500 mV halten.
Frequenzmarke 32,4 MHz mit L 251, L 252 und L 253 auf max. Amplitude abgleichen.




4. **Normautomatik**

4.1 Phasenkreis
Wobbler über HF-Übertrager (4 : 1) an TP 210 und Masse, ca. 200 mV. Meßschaltung ①.
Oszillograph über Tiefpaß 4,7 kΩ / 1 nF an TP 214.
Frequenzmarke 6,25 MHz mit L 281 auf Nulldurchgang abgleichen.

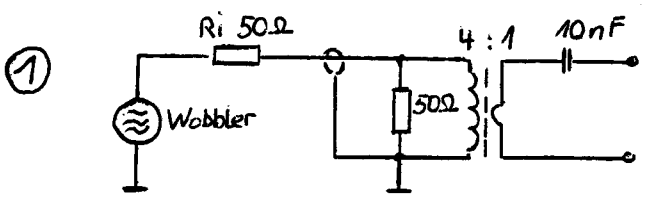
5. **DF-NF-Stufen**

5.1 NF 1, Phasenkreis 5,5 MHz und 6,0 MHz
Meßsender 5,5 MHz bzw. 6,0 MHz an TP 210 (Meßschaltung ②), Hub Δ f = 15 kHz, fmod = 1 kHz, ca. 200 mV.
Oszillograph an TZ 31
L 262 bei 5,5 MHz auf max. NF-Spannung und K2-Minimum abgleichen.
L 261 bei 6,0 MHz auf max. NF-Spannung und K2-Minimum abgleichen.
Abgleich von L 262 wiederholen.

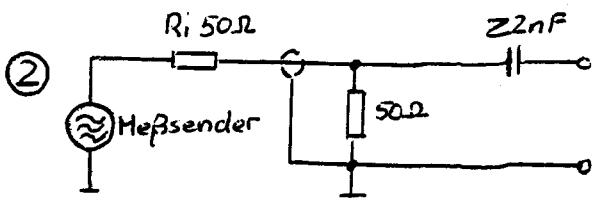
5.2 NF2, Phasenkreis 5,74 MHz
Meßsender 5,74 MHz an TP 210, Hub Δf = 15 kHz, fmod = 1 kHz, ca. 200 mV. Meßschaltung ②.
Oszillograph an TZ 33
L 272 bei 5,74 MHz auf max. NF-Spannung und K2-Minimum abgleichen.

5.4 Pegelgleichheit NF 1 (5,5 MHz) und NF 2 (5,74 MHz)
Normgerechten Stereosender in Monobetrieb empfangen, fmod = 1 kHz.
Differenzvoltmeter zwischen TZ 31 und TZ 33.
Mit R 266 Differenz $U_{NF1}/U_{NF2}$ ≤ 1% einstellen.

**Meßschaltung ①**
**Connexion de mesure ①**




**Meßschaltung ②**
**Connexion de mesure ②**



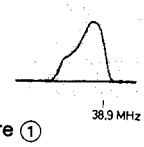
# Recommandation d'équilibrage

## Appareils de mesure requis

| | |
|---|---|
| Emetteur de vobulations avec transmetteur de marques:: | 3...42 MHz, 200 mV env. |
| Emetteur de mesure: | 4... 6 MHz, 200 mV env., course f = ± 15 kHz, fmod = 1 kHz |
| Oscillographe: | sensibilité 10 mV/cm...2 V/cm |
| Polarisateur: | réglable de 0...4,5 V, basses résistances |
| Voltmètre différentiel: | Ri ≥ 1 Mohm |

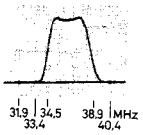
## Préparatifs

Tension de service 12 V ± 10% sur TZ 23
Tension de polarisation sur TP 206, TP 217 et TP 211
Let noyaux doivent se trouver à l'extrémité supérieure de la bobine.




1. **Etage FI image**

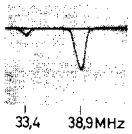
1.1 Circuit de référence
Wobbulateur par transmetteur HF (4 : 1) symétrique sur TP 203 et TP 204 200 mV environ. Connexion de mesure ①
Oscillographe sur TZ 24
Maintenir l'amplitude sur 450 mV env. avec tension de polarisation sur TP 206.
Equilibrer la marque de fréquence 38,9 MHz sur amplitude maximale au moyen de L 211.




1.2 Contrôle de la réponse en fréquence
Raccordement du wobbulateur et de l'oscillographe comme sous point 1.1
Relier TP 209 à TP 208 et TP 208 à TP 207 par 47 ohms chacun. Connexion de mesure 3. Régler la marque de fréquence 38 MHz sur 1 V avec tension de polarisation sur TP 206, correspondant à 0 dB.
La marque de fréquence 38,9 MHz doit se trouver entre –5 dB et –7 dB,
la marque de fréquence 34,5 MHz entre –3 dB et –5 dB.

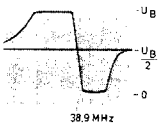
1.3 Contrôle du signal vidéo
Réception d'un émetteur TV conforme à la norme B/G.
La tension de sortie vidéo doit s'élever à 2 V crêtecrête ± 0,2 V.

2. **Etage FD**




2.1 Circuit de référence
Wobbulateur par transmetteur HF (4 : 1) symétrique sur TP 203 et TP 204 200 mV env. Connexion de mesure ①.
Module HF-Fi-BF multinorme.
Oscillographe sur TP 210.
Maintenir l'amplitude sur 200 mV env. pour 38,9 MHz avec tension de polarisation sur TP 217.
Equilibrer la marque de fréquence 38,9 MHz sur amplitude maximale au moyen de L 231.

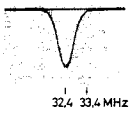
2.2 Système de correction automatique
Raccorder le wobbulateur comme indiqué sous point 2.1.
Connexion de mesure 1; course de wobbulation ≤ 0,5 MHz.
Oscillographe sur TP 205
Enlever la tension de polarisation de TP 217; TZ 29 doit être libre.
Equilibrer la marque de fréquence 38,9 MHz sur passage par zéro au moyen de L 232.




2.3 Contrôle du désaccord fin AFC
Appliquer sur TZ 29 une tension réglable de 2...10 V. Le passage par zéro de la courbe S doit se modifier de ± > 250 kHz.

3. **Etage AM-FI**

3.1 Filtre FI et circuit de référence
Wobbulateur par transmetteur HF (4 :1) symétrique sur TP 203 et TP 204 200 mV env. Connexion de mesure ①.
Oscillographe sur TP 212
Maintenir l'amplitude sur ≤ 500 mV pour 32,4 MHz avec tension de polarisation sur TP 211.
Equilibrer la marque de fréquence 32,4 MHz sur amplitude maximale au moyen de L 251, L 252 et L 253.




4. **Système automatique de norme**

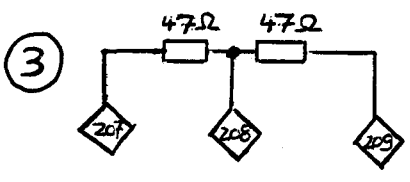
4.1 Circuit de phase
Wobbulateur par transmetteur HF (4 : 1) sur TP 210 et masse, 200 mV env. Connexion de mesure ①.
Oscillographe par filtre passe-bas 4,7 kOhms / 1 nF sur TP 214.
Equilibrer la marque de fréquence 6,25 MHz sur passage par zéro au moyen de L 281.

5. **Etages FD-BF**

5.1 BF 1, circuit de phase 5,5 MHz et 6,0 MHz
émetteur de mesure 5,5 MHz ou resp. 6,0 MHz sur TP 210, circuit de mesure ②, course f = 15 kHz, fmod = 1 kHz, 200 mV env.
oscillographe sur TZ 31
Equilibrer L 262 pour 5,5 MHz sur tension BF max. et K2 minimum.
Equilibrer L 261 pour 6,0 MHz sur tension BF max. et K2 minimum.
Répéter l'équilibrage de L 262.

5.2 BF2, circuit de phase 5,74 MHz
émetteur de mesure 5,74 MHz sur TP 210, course f = 15 kHz, fmod = 1 kHz, 200 mV env. Connexion de mesure ②.
oscillographe sur TZ 33
Equilibrer L 272 pour 5,74 MHz sur tension BF max. et K2 minimum.

5.4 Uniformité de niveau BF 1 (5,5 MHz) et BF 2 (5,74 MHz)
réception d'un émetteur stéréo de la norme correspondante en mode de fonctionnement mono
fmod = 1 kHZ
Voltmètre différentiel entre TZ 31 et TZ 33.
Régler la différence $U_{BF1}/U_{BF2}$ ≤ 1% au moyen de R 266.




**Meßschaltung ③**
**Connexion de mesure ③**

# HF-ZF Modul (Multinorm)
# Module HF-DF

**B 18a 3**

5829 01 77 (FS/Bd. 1/6 MHz)
5829 01 67 (VS/Bd. 1/6 MHz)

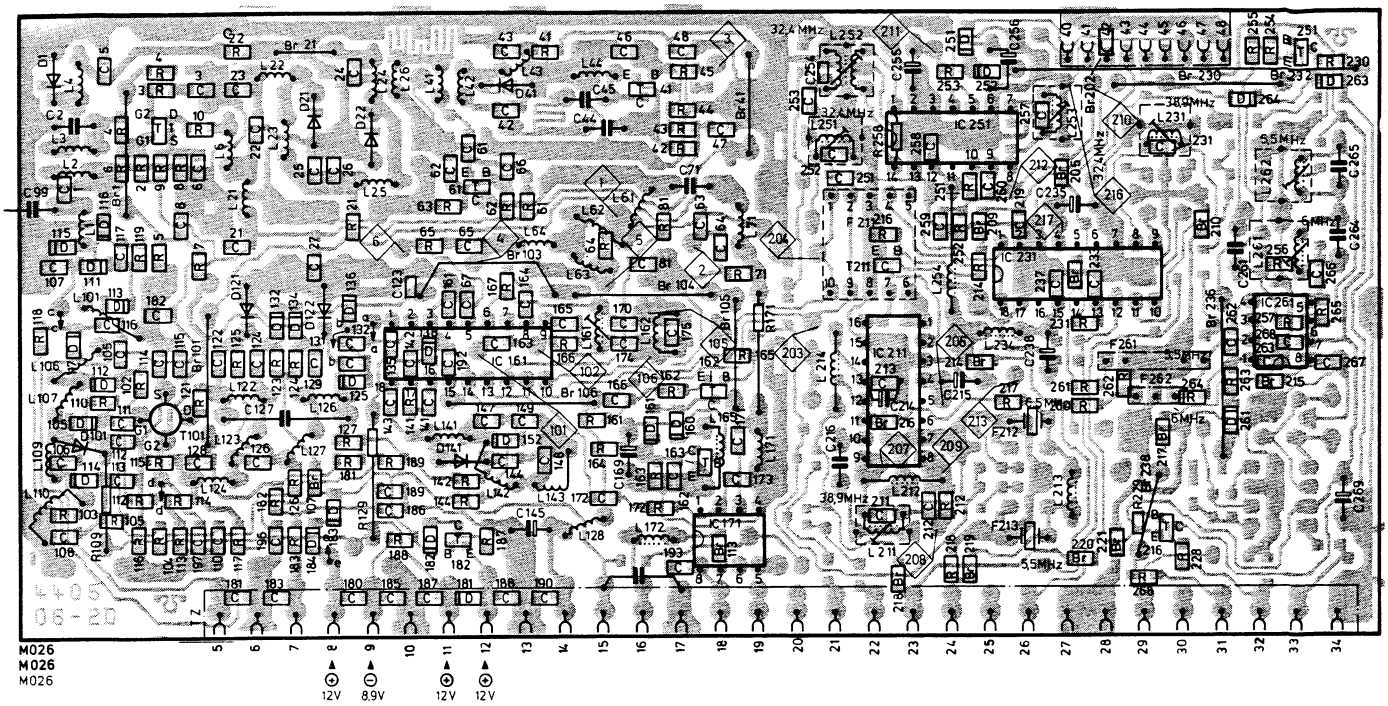
## Ersatzteile / Pièces de rechange

⚠ Sicherheitsbauteil im Sinn der Sicherheitsbestimmung. Diese Teile dürfen nur durch Originalteile ersetzt werden.
⚠ Composant de sécurité conformément aux réglementations de sécurité. Ces composants doivent être uniquement remplacés par des pièces originales.

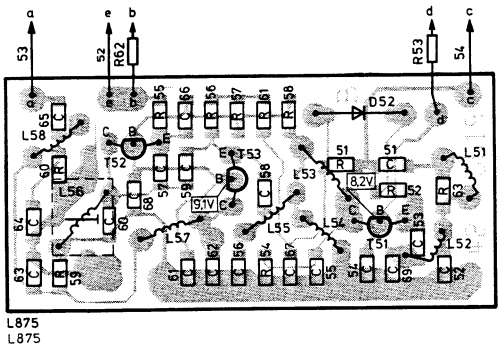
| Gegenstand<br>Pièce | | | Bestell-Nr.<br>N° de com. |
|---|---|---|---|
| **HF-ZF Modul**<br>**Module HF-DF** | | | **5829 01 77**<br>**5829 01 67** |
| IC 161 | TDA 5030 | | 3761 17 25 |
| IC 171 | U 664 B | MOS | 3775 05 73 |
| IC 211 | TDA 4453 | | 3761 16 29 |
| IC 231 | TDA 4427 A | | 3761 16 23 |
| IC 251 | TDA 4445 F | | 3761 16 22 |
| IC 261, 271 | U 829 B | | 3761 13 50 |
| T 1 | BF 989 | MOS | 3611 07 11 |
| T 41 | BF 569 | | 3612 07 11 |
| T 61 | BF 569 | | 3612 07 13 |
| T 101 | BF 981/ON 779 | MOS | 3611 11 11 |
| T 162 | BF 506-S 416 T | | 3612 07 15 |
| T 163 | BC 848 AF | | 3614 53 21 |
| T 182 | BC 857 AF | | 3614 54 11 |
| T 211, 216, 251 | BC 848 BF | | 3614 53 22 |
| D 1, 21, 22, 41 | 2 BB 521 | | 3651 05 55 |
| D 101, 121, 122, 141 | 2 BB 529 | | 3651 05 35 |
| D 105, 125, 231 | BB 629 | | 3651 03 26 |
| D 111...114, 132, 134, 136 138, 152 | BA 682 | | 3656 04 11 |
| D 115, 116, 181 | BAS 32 | | 3656 03 19 |
| D 117, 160, 161, 182, 184, 251, 252, 261, 263, 264, 271 | LL 414 B | | 3656 03 11 |
| D 183 | ZMM 6,8 | | 3653 16 25 |
| L 211, 231 | Filter / Filtre 38,9 MHz | | 4555 30 09 |
| L 212 | Drossel / Bobine de self | | 4557 18 33 |
| L 213 | Drossel / Bobine de self | | 4557 16 78 |
| L 214, 254 | Drossel / Bobine de self | | 4557 18 27 |
| L 232 | Filter / Filtre | | 4555 30 75 |
| L 234 | Drossel / Bobine de self | | 4557 16 25 |
| L 251, 253 | Spule / Bobine | | 4555 30 17 |
| L 252 | Spule / Bobine | | 4555 30 18 |
| L 261, 262, 272 | Filter / Filtre | | 4555 30 10 |
| F 211 | OFW G 3251 | | 4555 85 59 |
| F 212 | Filter / Filtre | | 4555 84 76 |
| F 213 | Filter / Filtre | | 4555 84 75 |
| F 261 | Filter / Filtre | | 4555 84 37 |
| F 262 | Filter / Filtre | | 4555 84 28 |
| F 271 | Filter / Filtre | | 4555 84 38 |

| Gegenstand<br>Pièce | | | Bestell-Nr.<br>N° de com. |
|---|---|---|---|
| R 266 | 2,2 k | Einst. / Ajusteur | 3111 36 55 |
| Gehäusedeckel<br>Couvercle du coffret | | | 8316 45 01 |
| Anschlußleiste, 34 polig<br>Réglette à douilles, 34 fois | | | 4145 16 75 |
| **Band 1-Konverter**<br>**Convertisseur Bd 1** | | | **6911 12 50** |
| T 1051 | | BF 509 S | 3612 53 10 |
| T 1052, 1053 | | BF 506 | 3612 53 09 |
| D 1052 | | 1 N 4148 | 3656 08 10 |
| L 1051 | | Spule / Bobine de self | 4544 01 31 |
| L 1052 | | Spule / Bobine de self | 4544 08 05 |
| L 1053 | | Spule / Bobine de self | 4544 07 53 |
| L 1054 | | Spule / Bobine de self | 4544 07 01 |
| L 1055 | | Spule / Bobine de self | 4544 07 83 |
| L 1056 | | Spule / Bobine de self | 4544 30 19 |
| L 1057 | | Spule / Bobine de self | 4544 08 09 |
| L 1058 | | Spule / Bobine de self | 4544 01 70 |
| **Normautomatik**<br>**Automatique norm** | | | **6911 12 52** |
| IC 218 | | U 829 B | 3761 13 50 |
| T 281, 282 | | BC 238 B | 3614 01 22 |
| T 283, 284 | | BC 308 B | 3614 59 52 |
| L 281 | | Filter / Filtre | 4555 30 43 |

| (D) | (F) | (D) | (F) |
|---|---|---|---|
| Ablenksystem | Déviateur | Lautsprecher | Haut-parleur |
| Abstimmspannung | Tension de syntonisation | Lautsprecherbuchse | Prise pour haut-parleur |
| AFC-Diskriminator | Discriminateur CAF | Lautstärke | Volume |
| AFC-Schalter | Commutateur CAF | Netzschalter | Interrupteur réseau |
| B/Blau | Bleu | Netzverbunden | Connecter an réseau |
| Band | Bande | NF | BF |
| Bandumschalter | Commutateur de bande | NF-Ausgang | Sortie BF |
| Bereichsmatrix | Matrice de bande | NF-Eingang | Entrée BF |
| Betriebsspannung | Tension d'alimentation | O-W Rasterk. | Correction coussin E-O |
| Bildröhrenanschluß | Connexion tube image | R/Rot | Rouge |
| Bildröhren-Heizung | Filament tube image | Rücklaufaustastung | Effacement ligne |
| Chassisplatte, Lötseite | Plaque imprimée, côte cuivre | Sandcastle-Impuls | Impulsion de décoplage |
| D/A Wandler | Convertisseur D/A | Schaltspannung | Tension de commutation |
| DF-Abschaltung (Stummschaltung) | Bloquage IF son | Schwarzabgleich | Réglage teint de fond |
| Display | Affichage | Spannband | Frein de faisceau |
| Einblendung | Surimpression | Strahlstrom-Begrenzung | Accord silentieux |
| Einsteller | Ajustement | Tonband | Reproducteur de sons |
| Elektr. Sich. | Fusible electronique | Tonbandbuchse | Prise pour reproducteur de sons |
| Entmagnetisierung | Démagnetisation | Tuner Band-Umschaltung | Commutation de bande |
| Farbe/Farbstärke | Intensité chrominance | $U_B$UHF-Osz. | $V_B$ oscillateur UHF |
| Farbdecoder | Décodeur couleur | $U_B$UHF-Vorst. | $V_B$ preampli UHF |
| FBAS | CLSS | $U_{G2}$ | Tension grille écran |
| Fernbedienung-Empfänger | Récepteur à ultrasons | UHF-Abstimmsp. AFC | Tension de syntonisation UHF/AFC |
| Fokus | Focalisation | UHF-Tuner | Tuner UHF |
| Grün/G | Vert | Umfeldaustastung | Effacement du champ d'affichage |
| Heizung | Filament | VCR Schalter/Umschalter | Commutateur VCR |
| Helligkeit | Luminosité | Vert. Ablenkung | Déviation verticale |
| HF | HF | Vert. Ablenkspulen | Bobine déviation verticale |
| Hor. Ablenkspulen | Déviateur horizontale | Vert. Ampl. | Amplitude verticale |
| Ablenkmodul | Module deviation horizontale | Vert. Austastimpuls | Impulsion blanking verticale |
| Hor. Amplitude | Amplitude horizontale | Vert. Austastung | Effacement vertical |
| Hor. Bildlage/Lage | Cadrage horizontale | Vert. Bildlage | Cadrage verticale |
| Hor. Endstufe | Etage final horizontale | Vert. Frequ. | Fréquence verticale |
| Hor. Lin. | Linearité horizontale | Vert. Gegenkopplung | Contre reaction verticale |
| Hor. Synch. | Synchroniation horizontale | Vert. Lin. | Linearité verticale |
| IDEAL COLOR | IDEAL COULEUR | Vertikal-Modul | Module verticale |
| Klang | Son | VHF-Abstimmsp. + AFC | Tension de syntonisation VHF + CAF |
| Kontrast | Contraste | VHF-Tuner | Tuner VHF |
| Koinzidenz | Coincidence | ZF | FI |
| Kopfhörer | Ecouteur | Ziffer Helligkeit | Luminosité chiffre |
| Kopfhörerbuchse | Prise pour écouteur | Zu den Bedienteilen | Vers unité de contrôle |

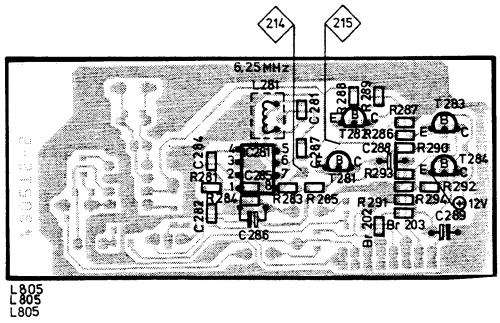



**Modul 5829 01 77**



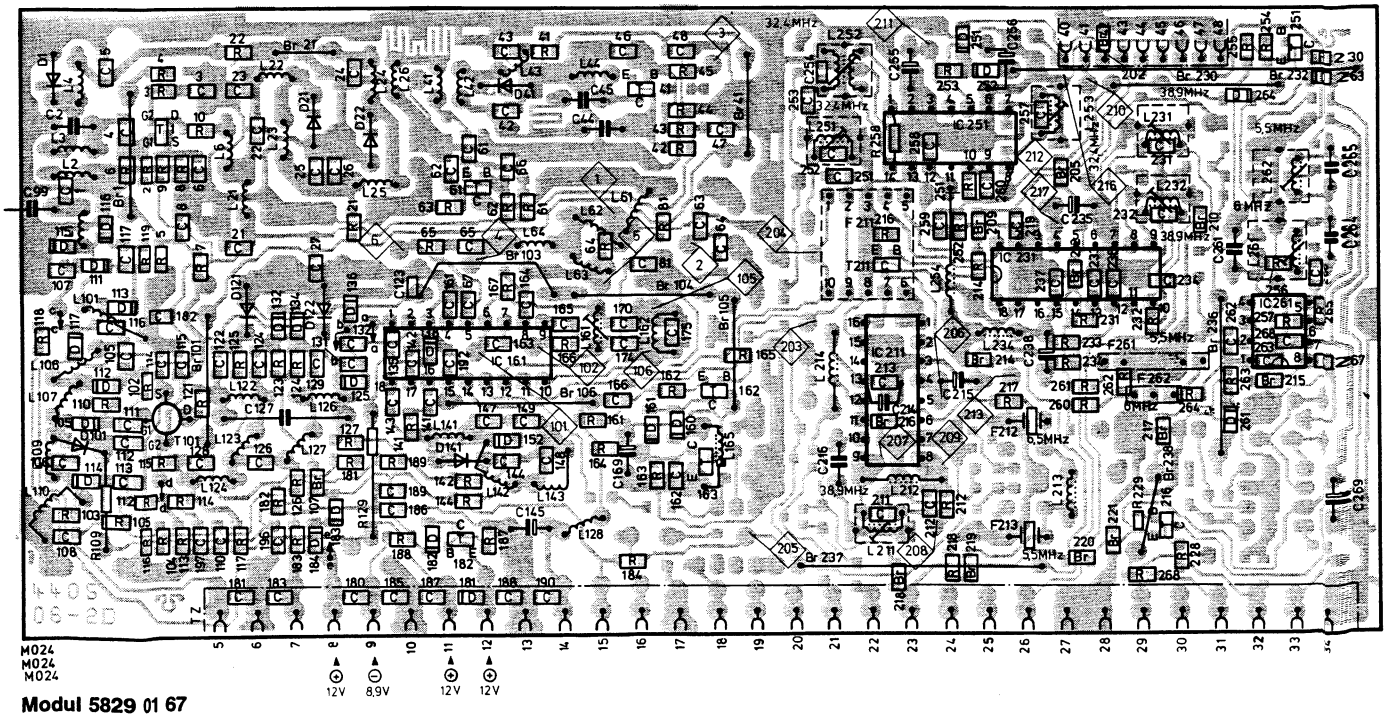

**Band 1-Konverter**
**Convertisseur Bd 1**

6911 12 50




**Normautomatik**
**Automatique norm**

6911 12 52



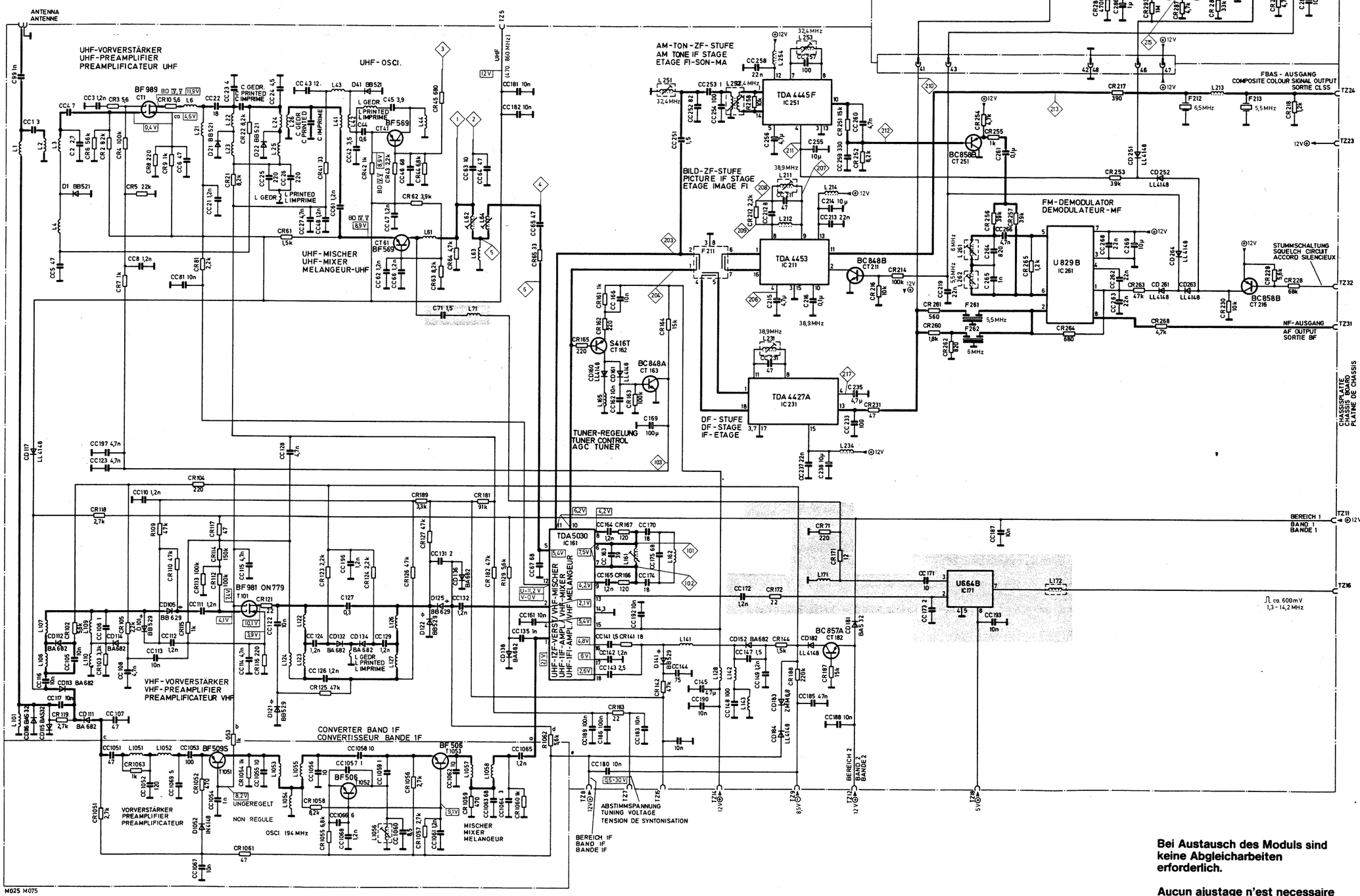

**Modul 5829 01 67**

# HF-ZF Modul (Multinorm)
# Module HF-DF

5829 01 77 (FS/Bd. 1/6 MHz)
5829 01 67 (VS/Bd. 1/6 MHz)

**B 18a 3**

## Modul 5829 01 77




**Bei Austausch des Moduls sind keine Abgleicharbeiten erforderlich.**

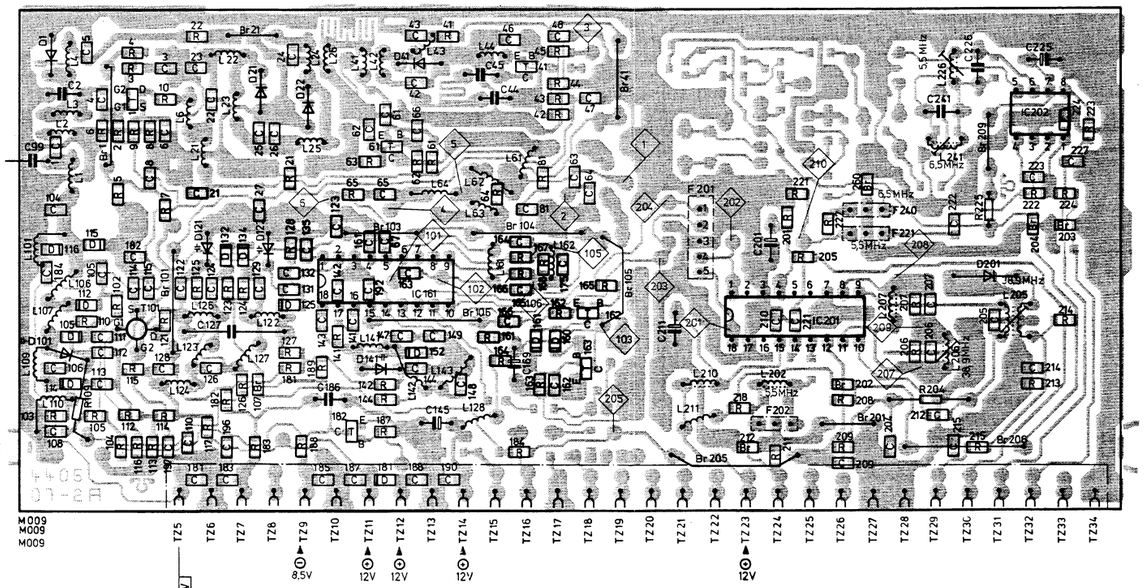
**Aucun ajustage n'est necessaire en cas remplacement du module.**

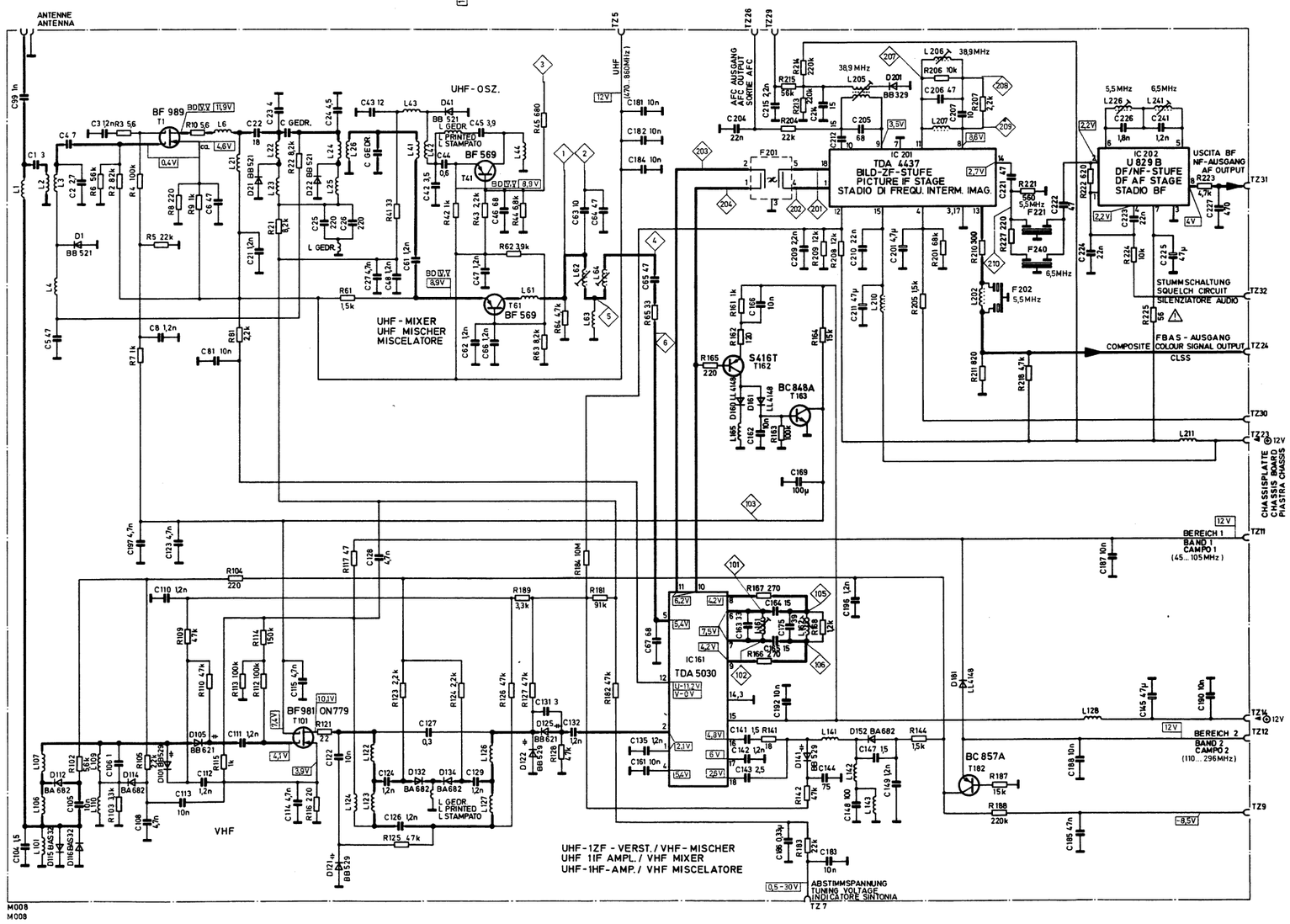
## Modul / Module / Modulo 5829 04 02

### 5,5 MHz/6,5 MHz (VS)
### Norm B/G, D/K

**Bei Austausch des Moduls sind keine Abgleicharbeiten erforderlich.**

**Replacing a defective module does not necessitate realignment.**



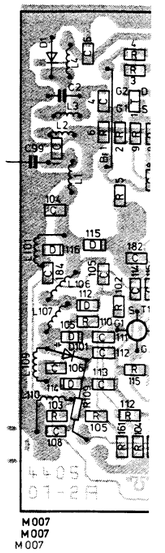



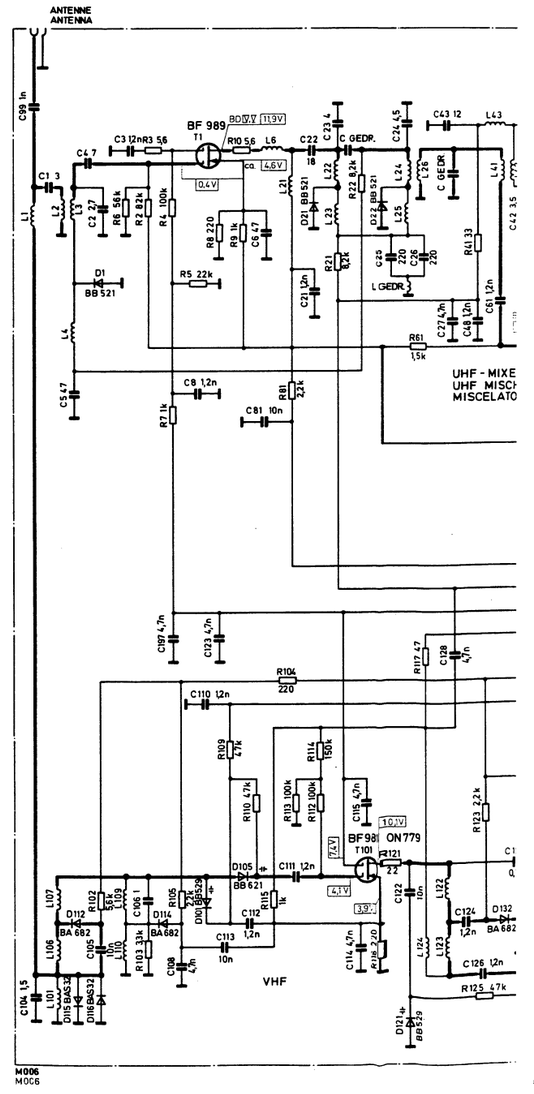

## Modul / Module / Modulo 5829 04 12

### 5,5 MHz/6,5 MHz (TCU)
### Norm B/G, D/K

**Bei Austausch des Moduls sind keine Abgleicharbeiten erforderlich.**

**Replacing a defective module does not necessitate realignment.**



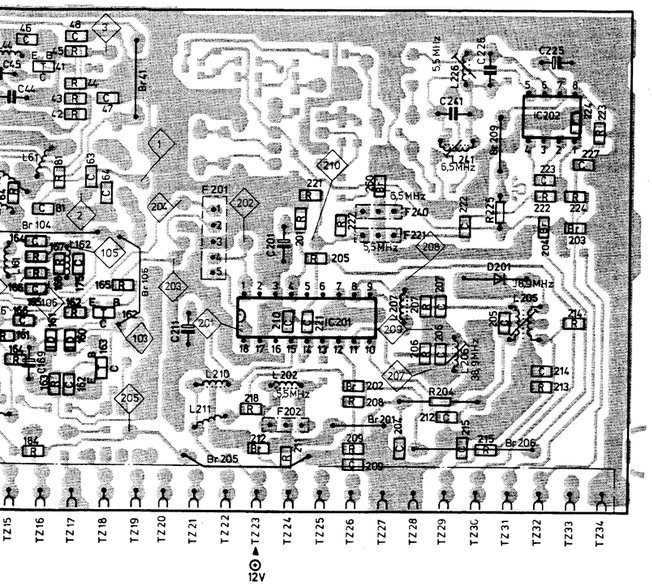
# B 18a 1

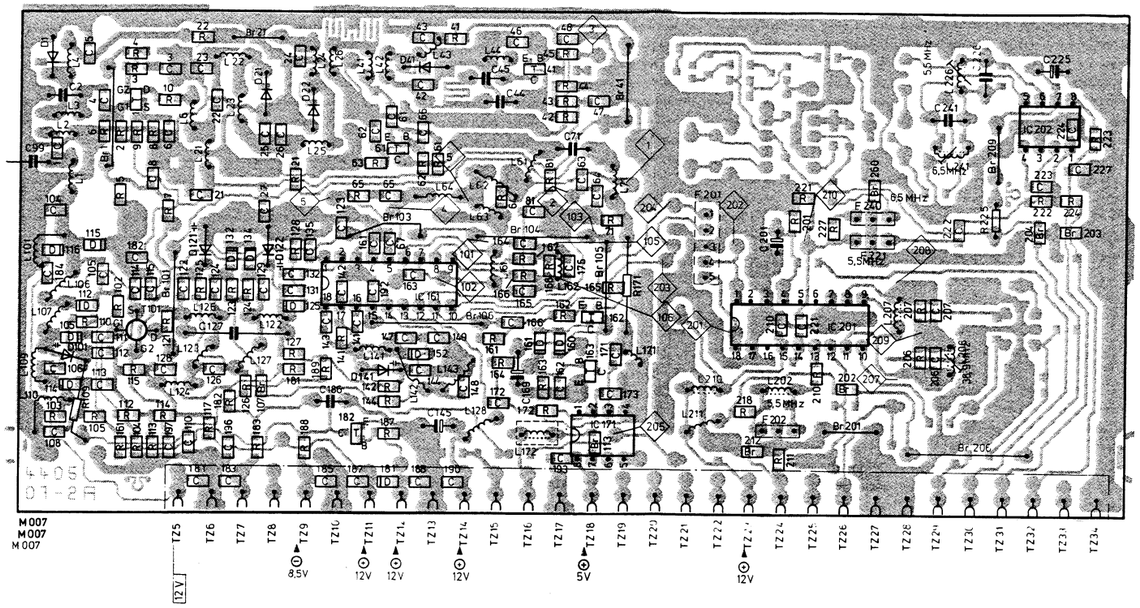
## Modul / Module / Modulo 5829 04 12

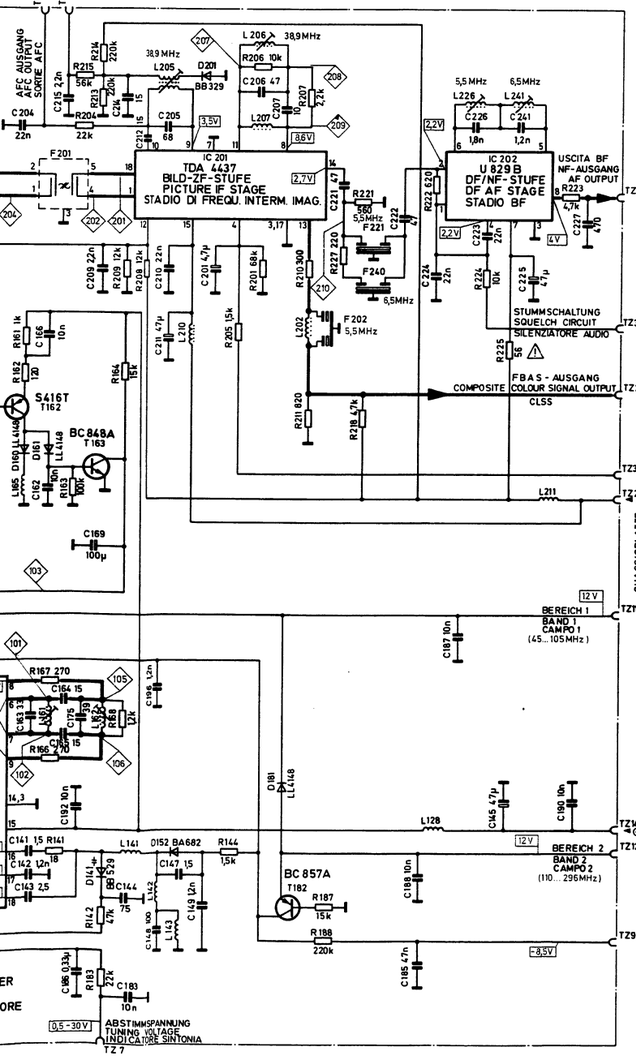
## 5,5 MHz/6,5 MHz (TCU)
## Norm B/G, D/K

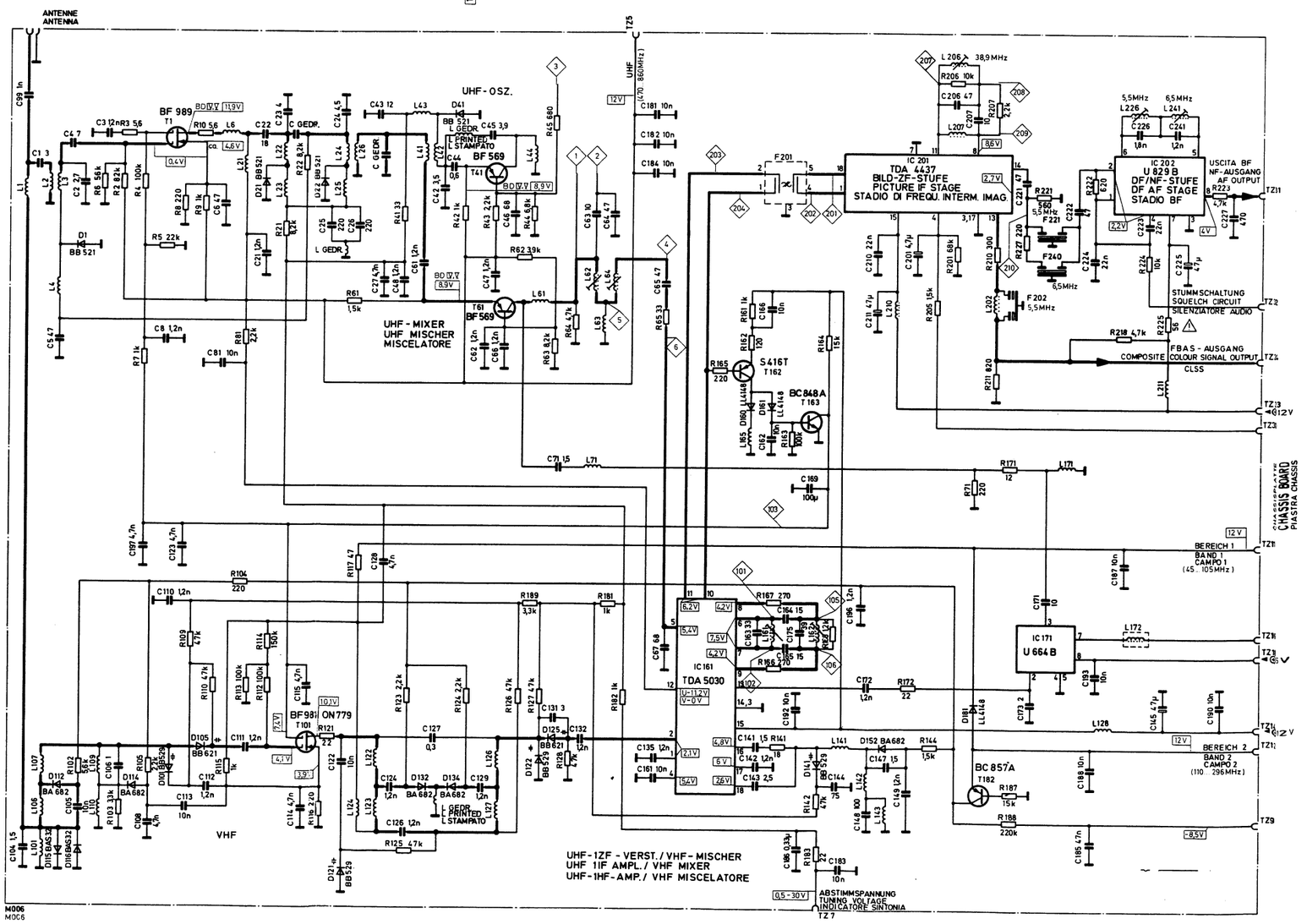
**Bei Austausch des Moduls sind keine Abgleicharbeiten erforderlich.**

**Replacing a defective module does not necessitate realignment.**





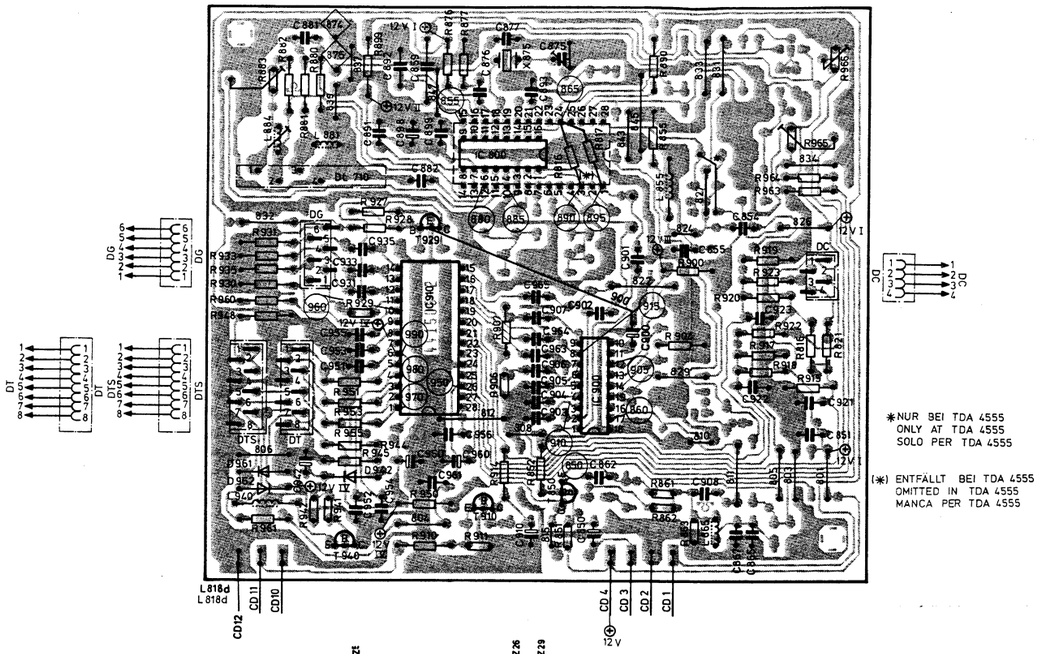


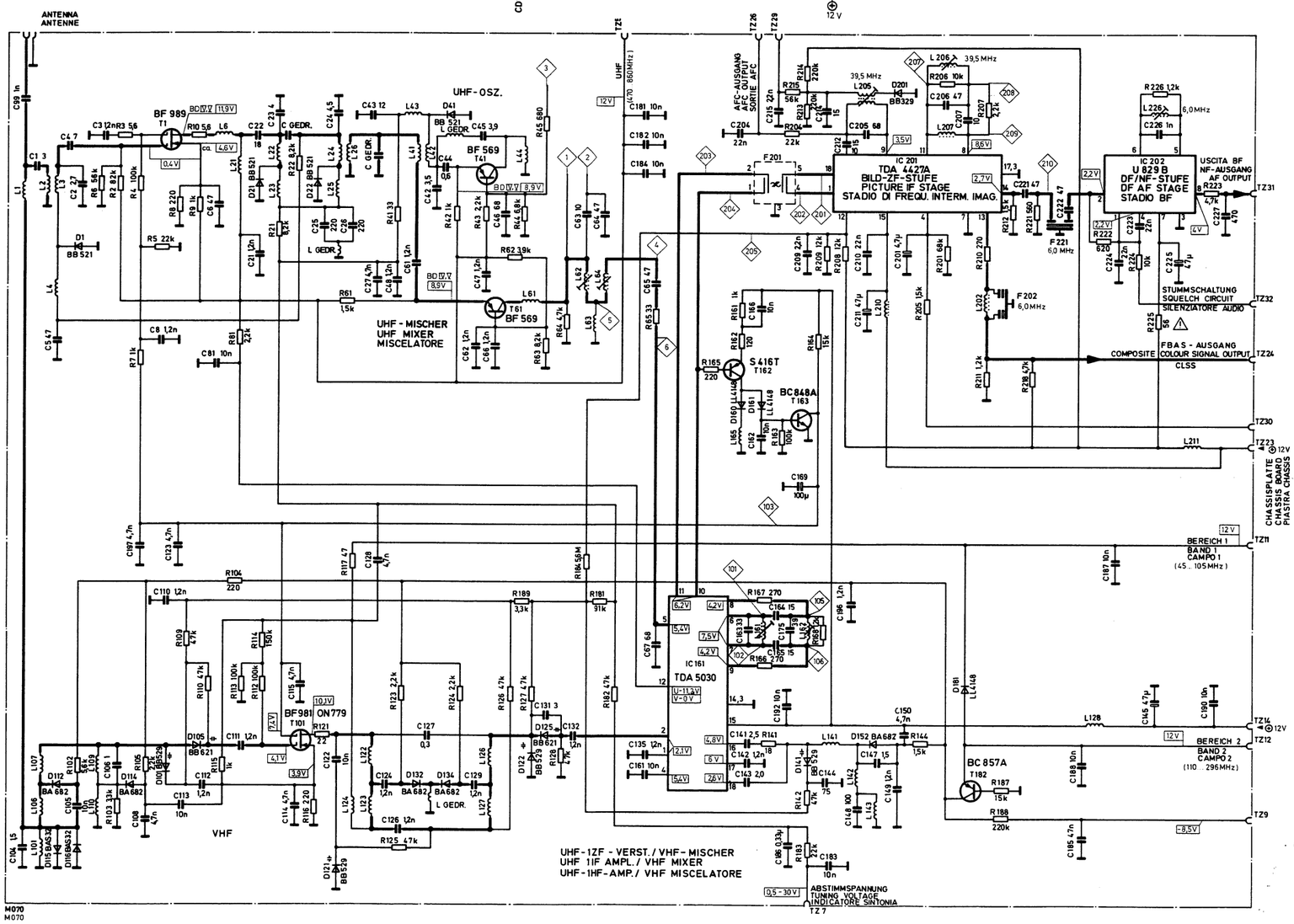



## RF-IF-AF module (UK/IR)

5829 04 42 (OS, IC, VS, 6 MHz)

**Replacing a defective module does not necessitate realignment.**



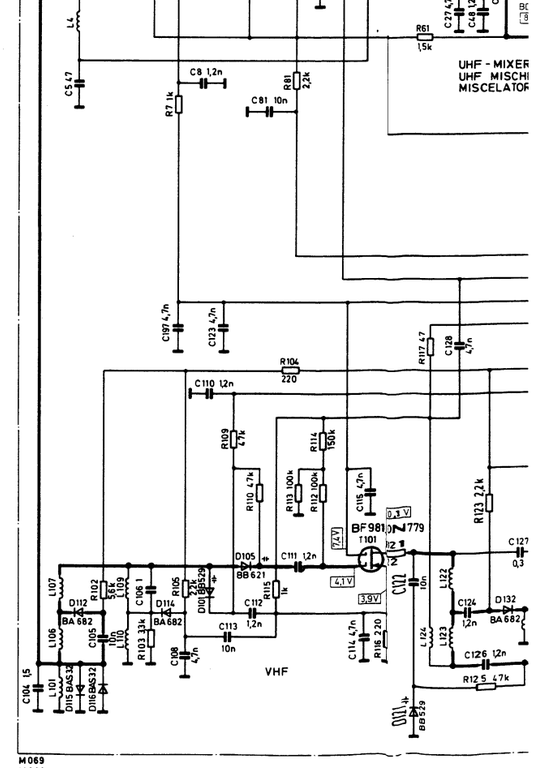




M070
M070

## RF-IF-AF module (UK/IRL)

5829 04 52 (OS, IC, FS, 6 MHz)

**Replacing a defective module does not necessitate realignment.**

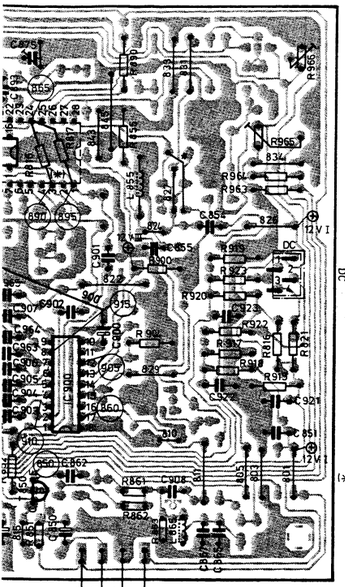



M069
M069

# RF-IF-AF module (UK/IRL)

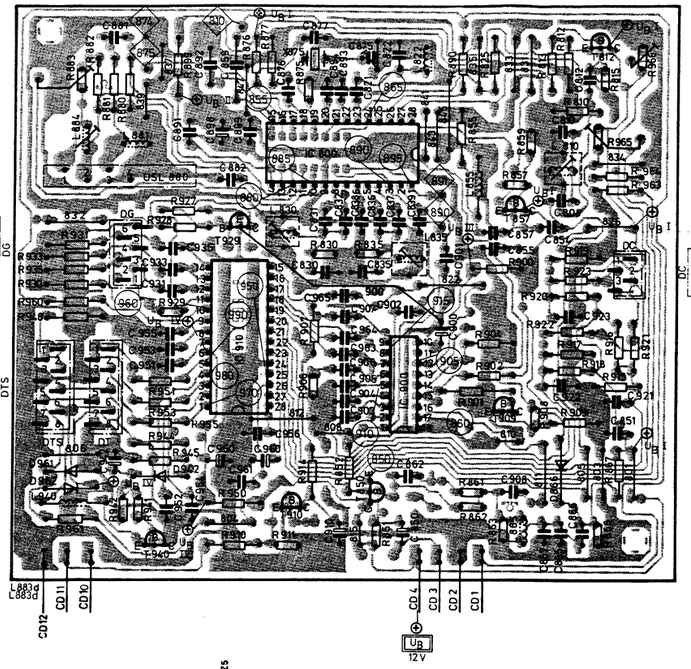
5829 04 52 (OS, IC, FS, 6 MHz)

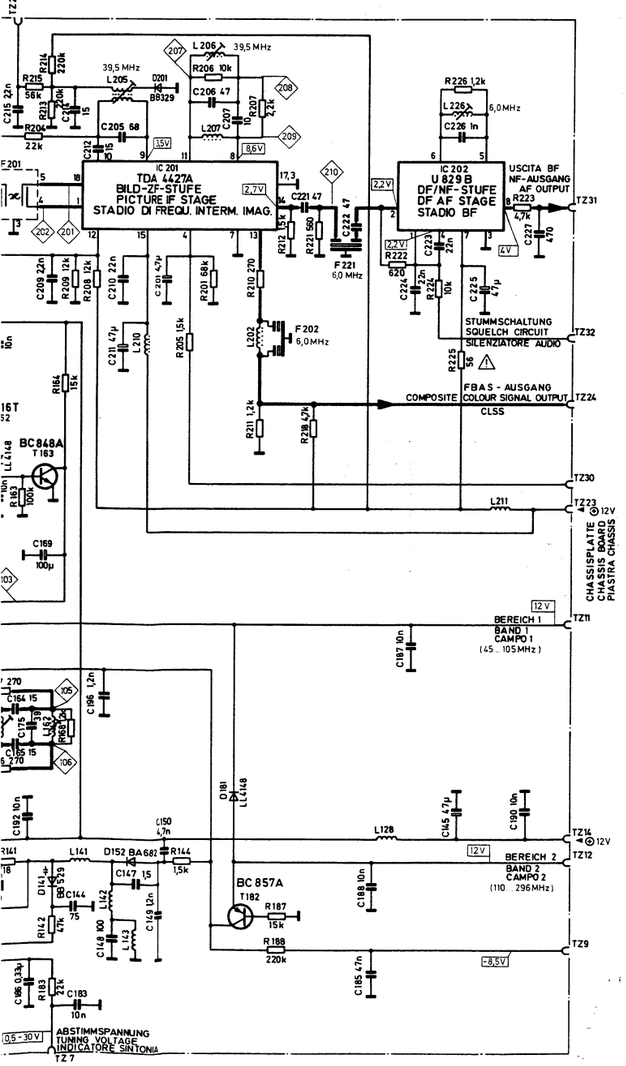
**Replacing a defective module does not necessitate realignment.**

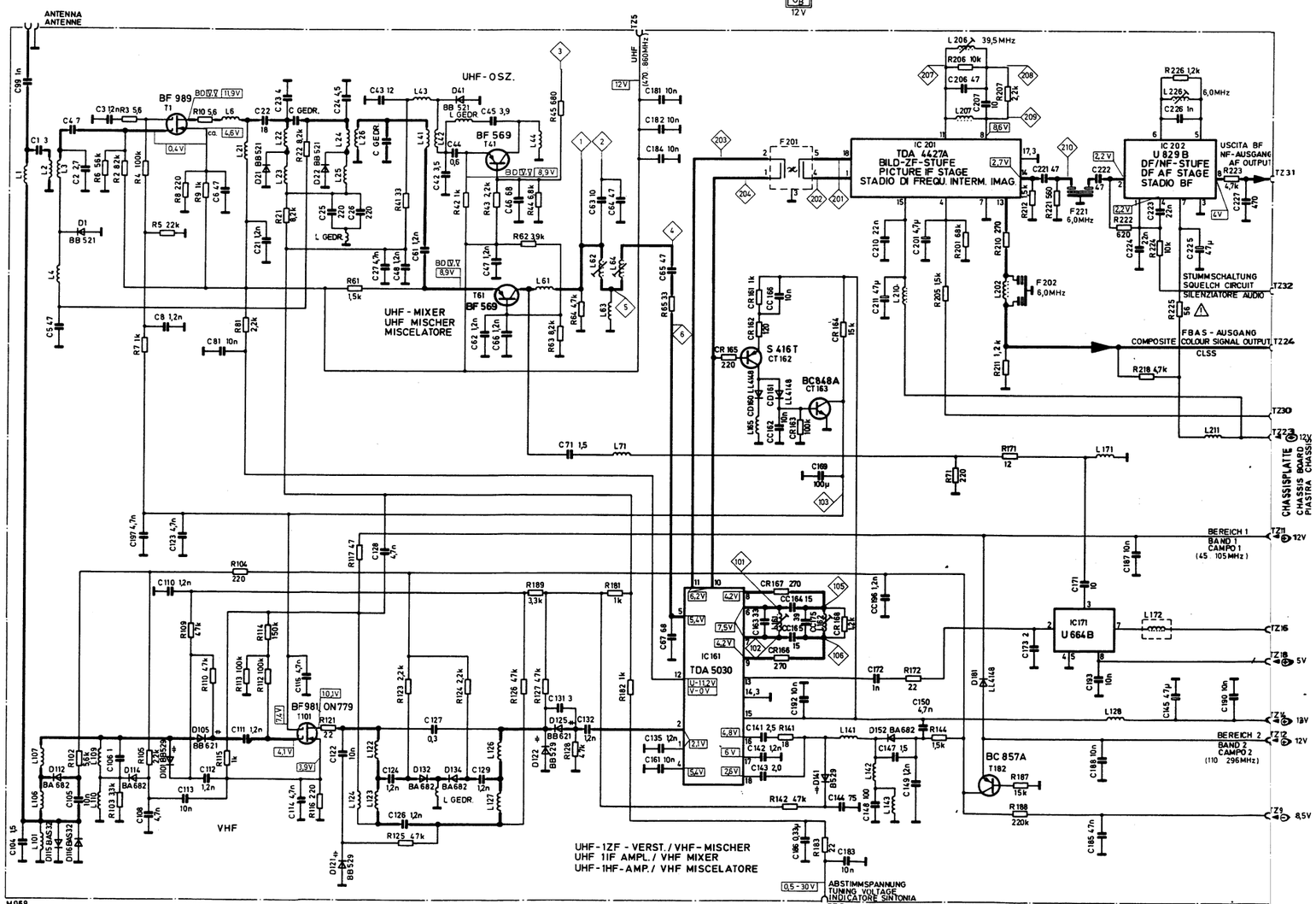


*NUR BEI TDA 4555
ONLY AT TDA 4555
SOLO PER TDA 4555

(*) ENTFÄLLT BEI TDA 4555
OMITTED IN TDA 4555
MANCA PER TDA 4555






M069
M069

**B 18a**

## HF-ZF-NF Modul
## RF-IF-AF module
## Module HF-DF-BF
## Modulo MF-BF-AF

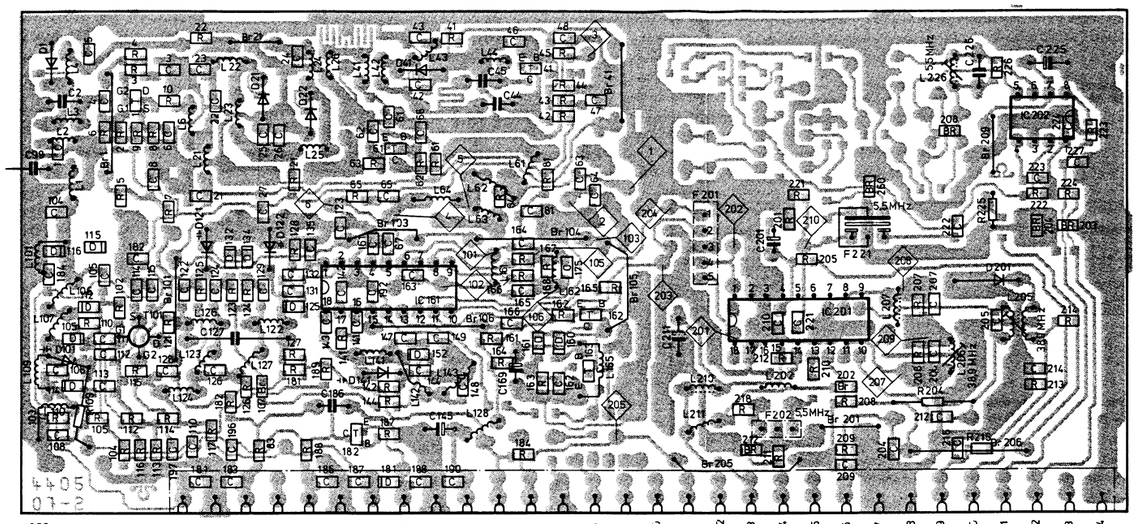
5829 04 01
5829 04 06

**Bei Austausch des Moduls sind keine Abgleicharbeiten erforderlich.**

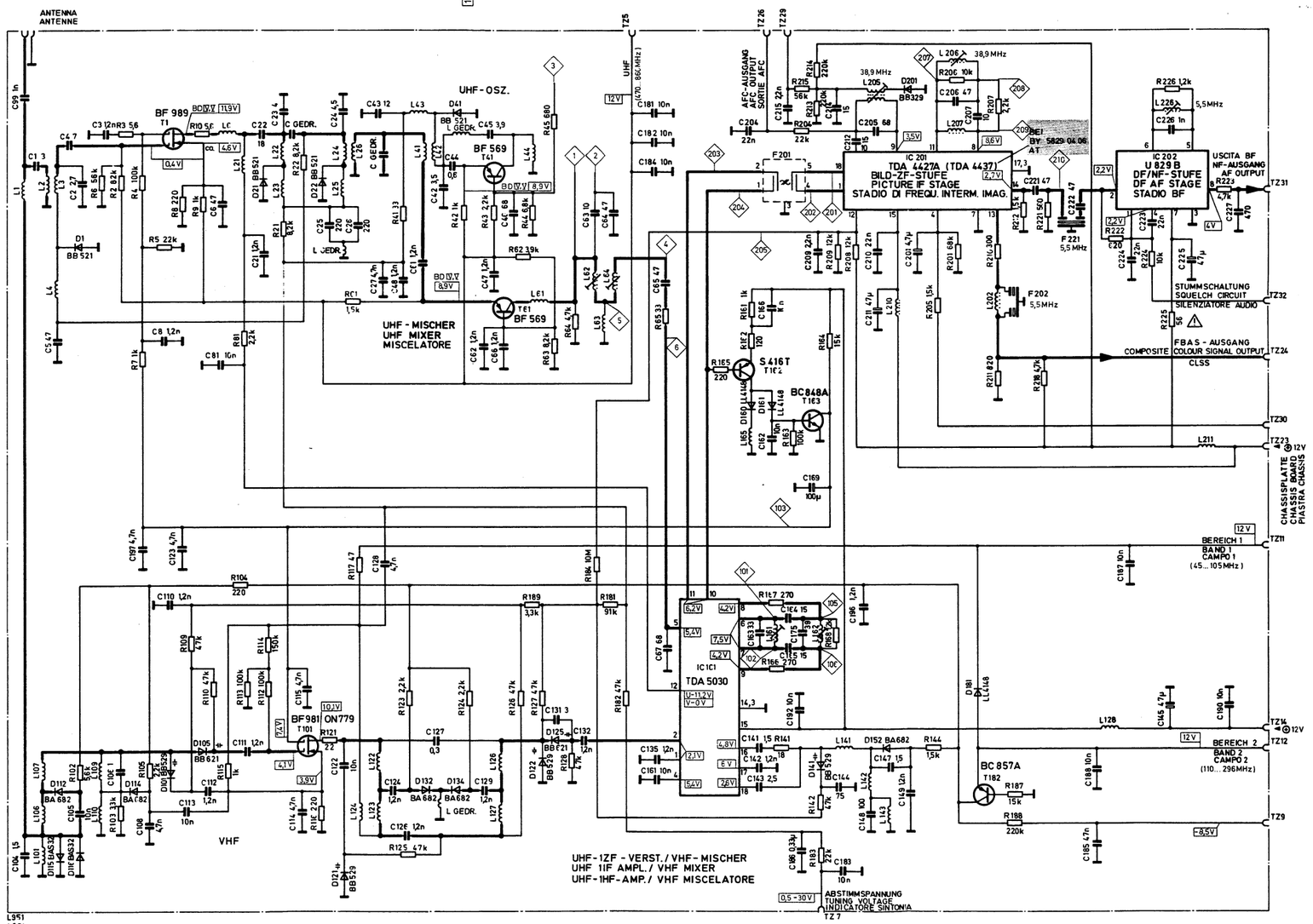
**Replacing a defective module does not necessitate realignment.**

**Aucun ajustage n'est necessaire en cas remplacement du module.**

**Nel caso di sostituzione dei moduli non è necessaria nessuna taratura.**

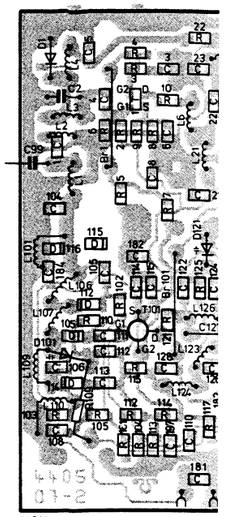


L950
L950
L950

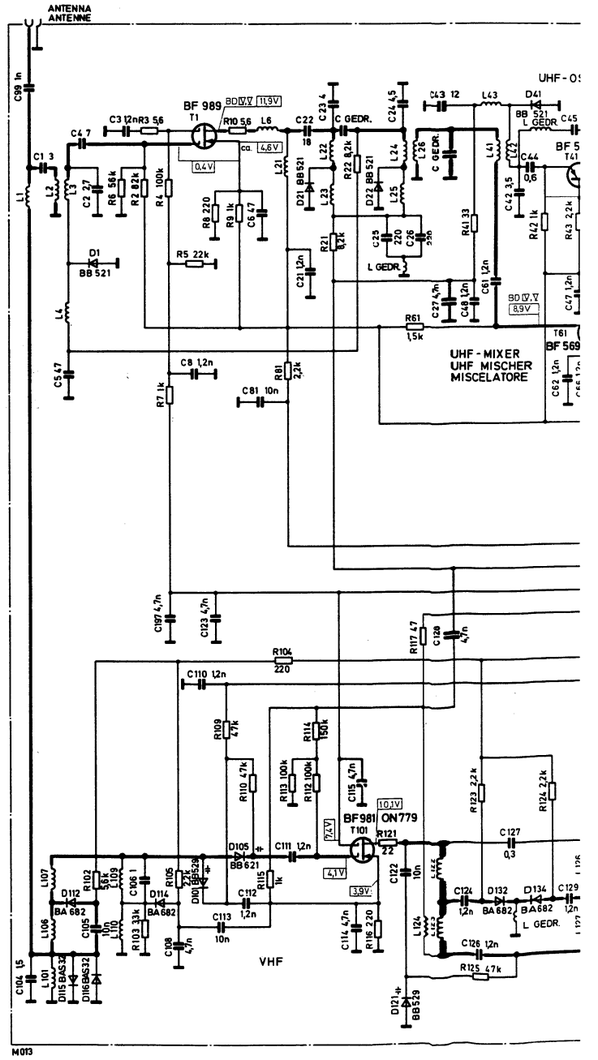



## HF-ZF-NF Modul
## RF-IF-AF module
## Module HF-DF-BF
## Modulo MF-BF-AF

5829 04 11
5829 04 16



M014
M014
M014

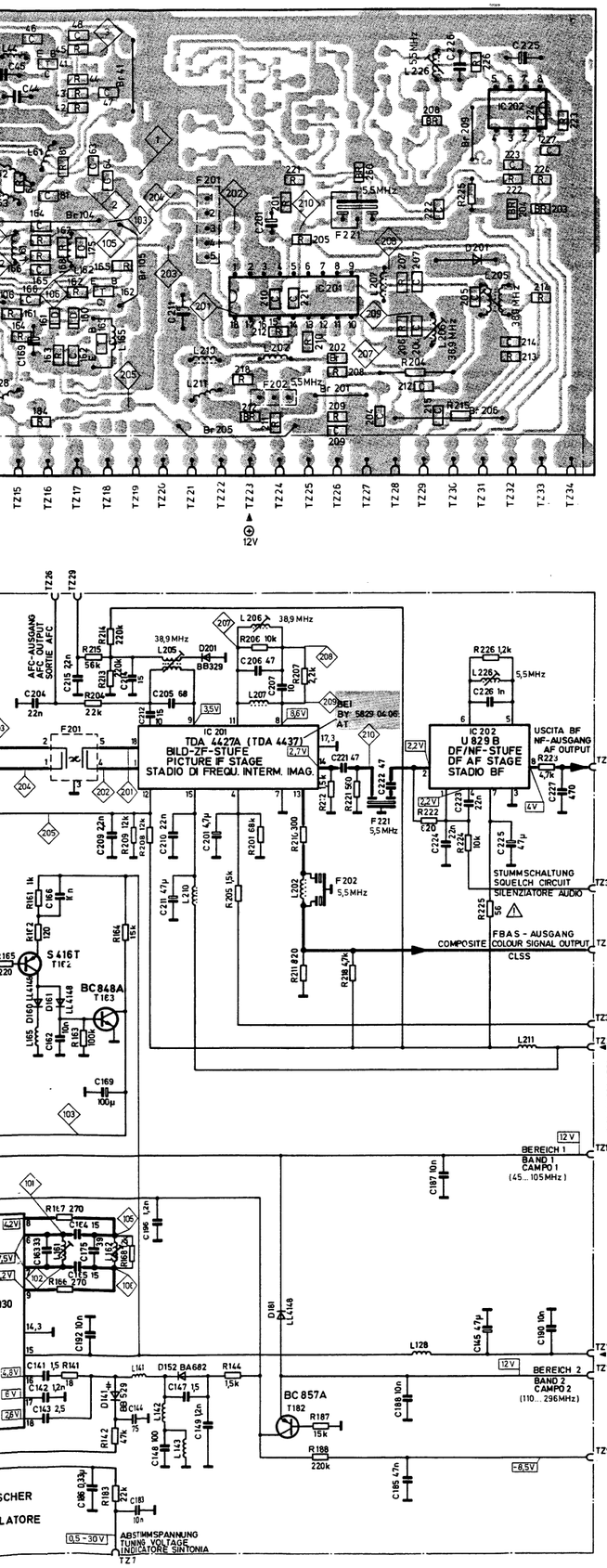


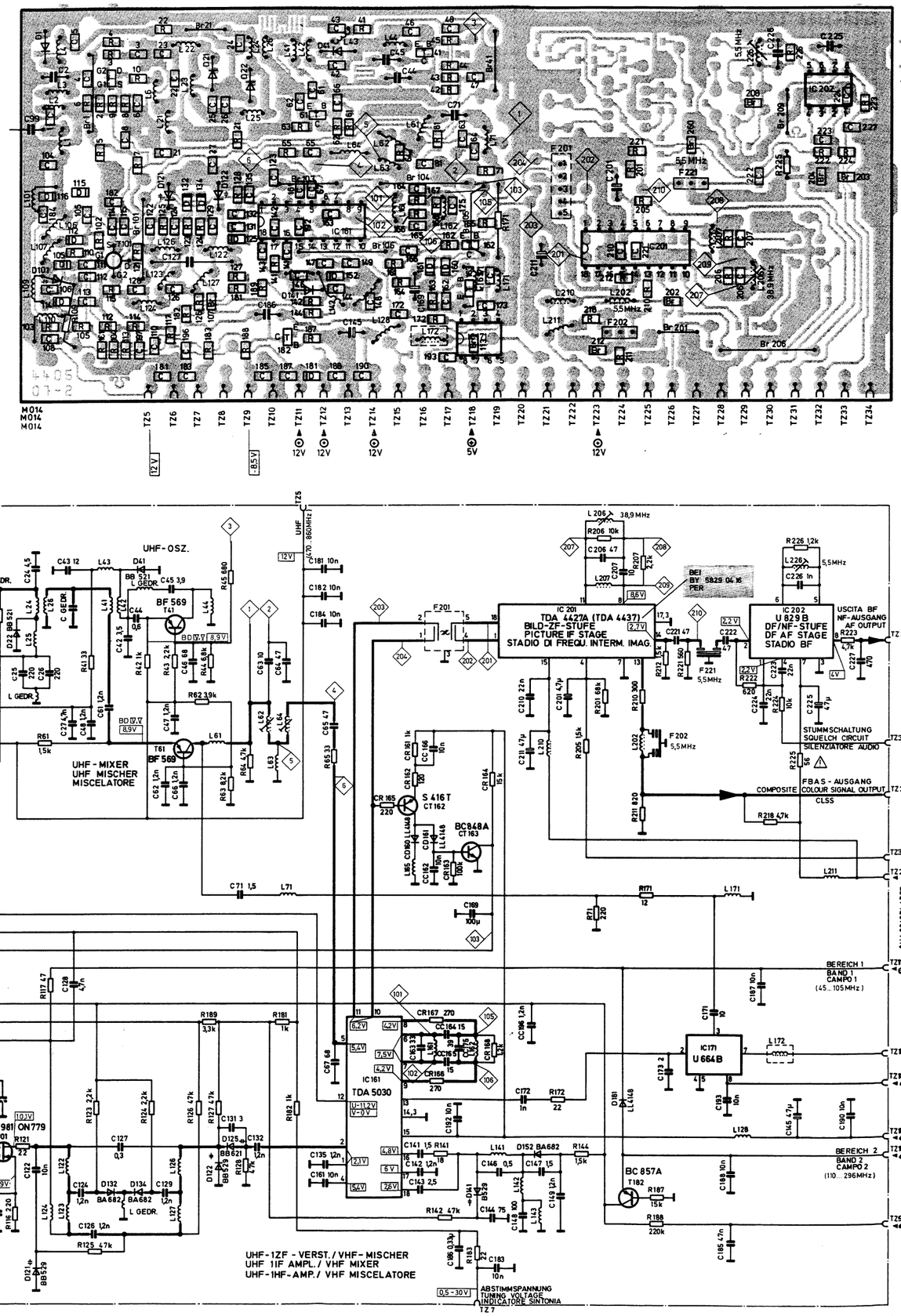

M013
M013

# B 18a

**HF-ZF-NF Modul**
**RF-IF-AF module**
**Module HF-DF-BF**
**Modulo MF-BF-AF**

5829 04 11
5829 04 16

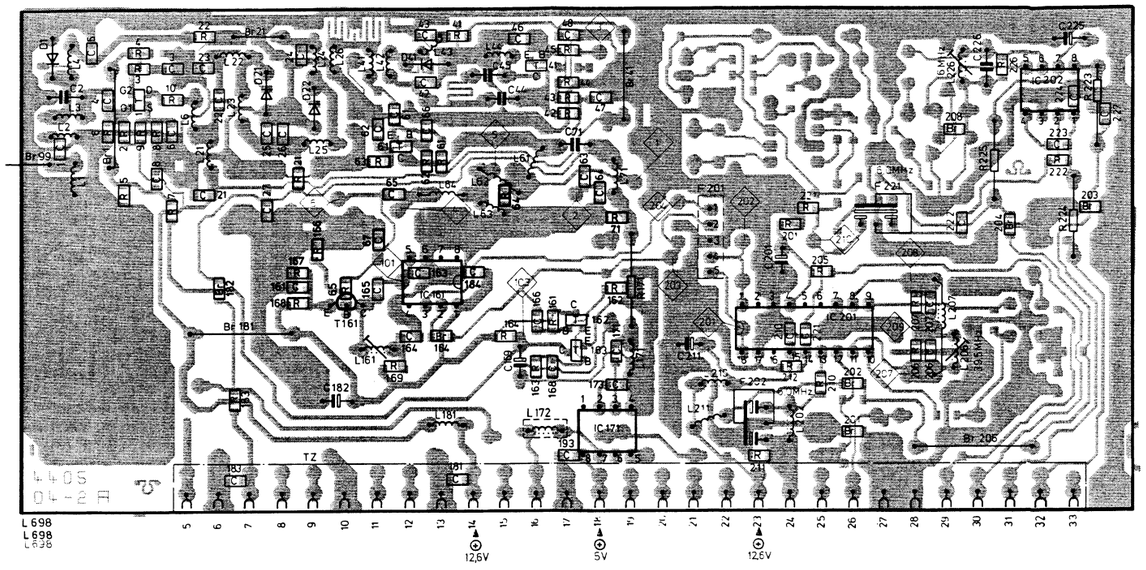


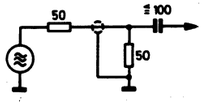
# Ersatzteile / Replacement parts list / Pièces de rechange / Elenco delle parti di ricambio

⚠ Sicherheitsbauteil im Sinn der Sicherheitsbestimmung. Diese Teile dürfen nur durch Originalteile ersetzt werden.
⚠ Safety components in accordance with existing regulations. These components must only be replaced by original component parts.
⚠ Composant de sécurité conformément aux réglementations de sécurité. Ces composants doivent être uniquement remplacés par des pièces d'origines.
⚠ Componenti di sicurezza ai sensi del regolamento di sicurezza. Queste componenti devono venir sostituite unicamente con parti originali.

| Gegenstand / Item / Pièce / Ricambi | | | Bestell-Nr. / Order no. / N° de com. / No. di rif. |
|---|---|---|---|
| **HF-ZF-NF Modul** | | | **5829 01 51** |
| **RF-IF-AF module** | | | **5829 04 42** |
| **Module HF-DF-BF** | | | **5829 04 52** |
| **Modulo MF-BF-AF** | | | |
| IC 161 | TDA 5030 | | 3761 17 25 |
| IC 171 | U 664 B | MOS | 3775 05 73 |
| IC 201 | TDA 4427 A | | 3761 16 23 |
| IC 202 | U 829 B | | 3761 13 50 |
| T 1 | BF 989 | MOS | 3611 07 11 |
| T 41 | BF 569-L | | 3612 07 11 |
| T 61 | BF 569-E 6327 | | 3612 07 13 |
| T 101 | BF 981/ON 779 | MOS | 3611 11 11 |
| T 161 | BF 494 | | 3612 01 33 |
| T 162 | BF 840 | MOS | 3612 07 50 |
| T 163 | BC 848 AF | | 3614 53 21 |
| T 182 | BC 857 AF | | 3614 54 11 |
| D 1, 21, 22, 41 | 2 BB 521 | | 3651 05 55 |
| D 101, 121, 122, 141 | 2 BB 529 | | 3651 05 35 |
| D 105, 125 | BB 621 | | 3651 06 12 |
| D 112, 114, 132, 134, 152 | BA 682 | | 3656 04 11 |
| D 115, 116, 181 | BAS 32 | | 3656 03 19 |
| D 121, 122, 141 | 2 BB 529 | | 3651 05 35 |
| D 125 | BB 621 | | 3651 06 12 |
| D 132, 134, 152 | BA 682 | | 3656 04 11 |
| D 201 | BB 329 A | | 3651 08 30 |
| L 161 | Spule / Coil / Bobine / Bobina | | 4555 16 05 |
| L 172 | Drossel / Choke / Bob. de self / Bobina | | 4557 16 28 |
| L 202 | Drossel / Choke / Bob. de self / Bobina | | 4557 16 32 |
| L 205 | Filter / Filter / Filtre / Filtre 38,9 MHz | | 4555 30 75 |
| L 206 | Filter / Filter / Filtre / Filtre 38,9 MHz | | 4555 30 09 |
| L 207 | Drossel / Choke / Bob. de self / Bobina | | 4557 80 47 |
| L 210 | Drossel / Choke / Bob. de self / Bobina | | 4557 16 25 |
| L 211 | Spule / Coil / Bobine / Bobina | | 4544 07 46 |
| L 226 | Filter / Filter / Filtre / Filtre 5,5 MHz | | 4555 30 10 |
| F 201 | OFW G 1954 | | 4555 85 09 |
| F 202 | Filter / Filter / Filtre / Filtre 6 MHz | | 4555 84 15 |
| F 221 | Filter / Filter / Filtre / Filtre 6 MHz | | 4555 84 28 |
| Anschlußleiste, 34 polig / Female plug, 34 fold<br>Réglette à douilles, 34 fois / Spinottiera, 34 poli | | | 4145 16 75 |
| Gehäusedeckel / Cabinet can top<br>Boîtier parte supérieur / Coperchio schermatura | | | 8316 45 01 |
| Raststift / Plunger pins / Arrêts / Ambedue le spine | | | 8642 75 02 |




## Test circuits 1




WOBBLER
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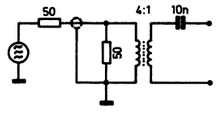
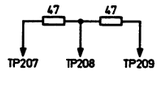
## Test circuits 2



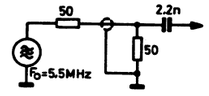

ZF-EINSPEISUNG
IF INPUT
ENTRATA FREQU. INTERMEDIA

## Test circuits 3




DÄMPFUNGSWIDERSTÄNDE
DAMPING RESISTORS
RESISTENZE DI SMORZAMENTO

## Test circuits 4

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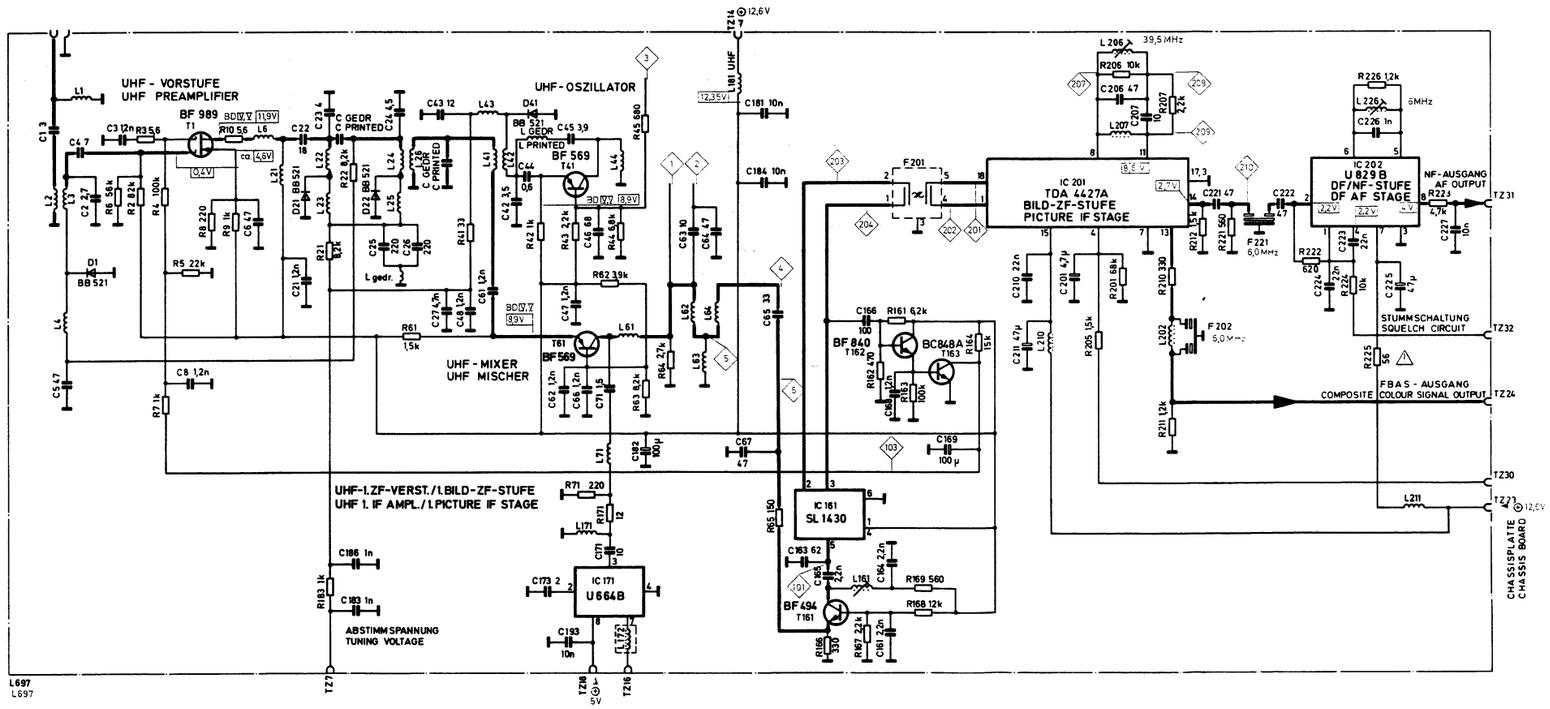
**RF-IF-AF module (UK)**
5829 01 51 (FS, 6 MHz)

**RF-IF-AF module (UK/IRL)**
5829 04 42 (OS, IC, VS, 6 MHz)

**RF-IF-AF module (UK/IRL)**
5829 04 52 (OS, IC, FS, 6 MHz)




**Alignment**
**Replacement parts list**

# KUNDENDIENST

ITT Graetz

SERVICE

**HF-ZF-NF Modul (Kabeltuner)**
**RF-IF-AF module (Cable tuner)**
**Module HF-DF-BF**
**(Tuner pour réseau cablé)**
**Modulo MF-BF-AF**
**(Tuner a larga banda)**

**B 18a**

5829 04 01 (Norm B, G)
5829 04 11 (Norm B, G, Frequenzteiler)
5829 04 16 (Norm B, G, Frequenzteiler)

**Ausbauhinweise:**

Beide roten Raststifte (Fig. 1) um 90° drehen. HF- Modul aus dem Halter ziehen.

1. Mit beiden Daumen gleichzeitig auf die Blechsicke drücken bis sich die Deckelfalze aufbiegen, dann den Deckel abnehmen (Fig. 1).
2. Vor dem Wiederaufsetzen des Deckels die Blechsicke von der Innenseite wieder in die Normallage zurückdrücken (Fig. 2).
3. Deckel wieder auflegen.

**Instructions for dismantling:**

Turn the two red plunger pins by 90°. Remove module from bracket (Fig. 1).

1. Apply pressure to the plate channel simultaneously with both thumbs, until the cover seaming bends, then remove cover (Fig. 1).
2. Before the cover can be put back on, the plate channel must first be pressed back into its proper position from the inside (Fig. 2).
3. Put cover back on.

**Démontage:**

Tourner à 90° les deux arrêts rouges de déclenchement. Enlever le module de tuner-HF de support.

1. Appuyer avec les deux pouces symétriquement sur les drains de blindage jusqu'à le couvercle se plie de deux côtés et après enlever vers le haut.
2. Avant de remettre le couvercle repousser avec deux pouces symétriquement aux drains de l'intérieur du blindage à la position d'origine. (Fig. 2)
3. Remetter le couvercle.

**Indicazioni sullo smontaggio:**

Ruotare ambedue le spine rosse a tenuta meccanica di 90° (Fig. 1). Estrarre il modulo dal supporto.

1. Premere con ambedue i pollici contemporaneamente sulla scanalatura della lamiera fino a che le graffature del coperchio si piegano verso l'alto, poi togliere il coperchio (Fig. 1).
2. Prima di rimettere il coperchio, ripremere la scanalatura della lamiera dall'interno per rimetterla in posizione normale (Fig. 2).
3. Rimettere il coperchio.

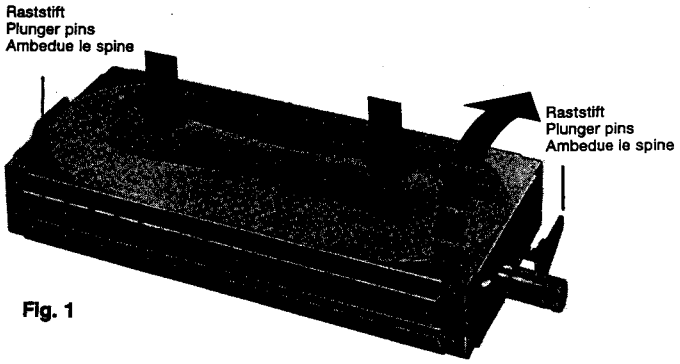



**Fig. 1**

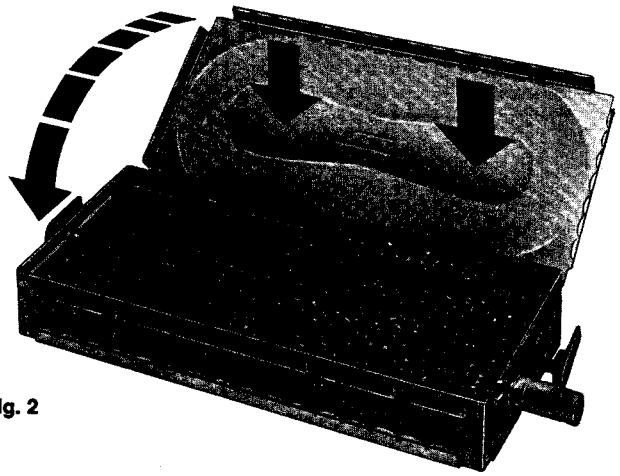


**Fig. 2**

## Ersatzteile / Replacement parts list / Pièces de rechange / Elenco delle parti di ricambio

⚠ Sicherheitsbauteil im Sinn der Sicherheitsbestimmung. Diese Teile dürfen nur durch Originalteile ersetzt werden.
⚠ Safety components in accordance with existing regulations. These components must only be replaced by original component parts.
⚠ Composant de sécurité conformément aux réglementations de sécurité. Ces composants doivent être uniquement remplacés par des pièces d'origines.
⚠ Componenti di sicurezza ai sensi del regolamento di sicurezza. Queste componenti devono venir sostituite unicamente con parti originali.

| Gegenstand / Item / Pièce / Ricambi | | | Bestell-Nr. / Order no. / N° de com. / No. di rif. |
|---|---|---|---|
| **HF-ZF-NF Modul (Kabeltuner)**<br>**RF-IF-AF module (Cable tuner)**<br>**Module HF-DF-BF (Tuner pour réseau cablé)**<br>**Modulo MF-BF-AF (Tuner a larga banda)** | | | **5829 04 01**<br>**5829 04 11**<br>**5829 04 16** |
| IC 161 | TDA 5030 | | 3761 17 25 |
| IC 171 | U 664 B | MOS | 3775 05 73 |
| IC 201 | TDA 4427 A | | 3761 16 23 |
| IC 202 | U 829 B | | 3761 13 50 |
| T 1 | BF 989 | MOS | 3611 07 11 |
| T 41 | BF 569-L | | 3612 07 11 |
| T 61 | BF 569-E 6327 | | 3612 07 13 |
| T 101 | BF 981/ON 779 | MOS | 3611 11 11 |
| T 162 | S 416 T | | 3612 07 15 |
| T 163 | BC 848 AF | | 3614 53 21 |
| T 182 | BC 857 AF | | 3614 54 11 |
| D 1, 21, 22, 41 | 2 BB 521 | | 3651 05 55 |
| D 101, 121, 122, 141 | 2 BB 529 | | 3651 05 35 |
| D 105, 125 | BB 621 | | 3651 06 12 |
| D 112, 114, 132, 134, 152 | BA 682 | | 3656 04 11 |
| D 115, 116, 181 | BAS 32 | | 3656 03 19 |

| Gegenstand / Item / Pièce / Ricambi | | Bestell-Nr. / Order no. / N° de com. / No. di rif. |
|---|---|---|
| D 121, 122, 141 | 2 BB 529 | 3651 05 35 |
| D 125 | BB 621 | 3651 06 12 |
| D 132, 134, 152 | BA 682 | 3656 04 11 |
| D 160, 161 | LL 4148 | 3656 03 11 |
| D 201 | BB 329 A | 3651 08 30 |
| L 202 | Drossel / Choke / Bob. de self / Bobina | 4557 16 29 |
| L 205 | Filter / Filter / Filtre / Filtre 38,9 MHz | 4555 30 75 |
| L 206 | Filter / Filter / Filtre / Filtre 38,9 MHz | 4555 30 23 |
| L 207 | Drossel / Choke / Bob. de self / Bobina | 4557 16 49 |
| L 210 | Drossel / Choke / Bob. de self / Bobina | 4557 16 25 |
| L 211 | Spule / Coil / Bobine / Bobina | 4544 07 46 |
| L 226 | Filter / Filter / Filtre / Filtre 5,5 MHz | 4555 30 15 |
| F 201 | OFW G 1954 | 4555 85 58 |
| F 202 | Filter / Filter / Filtre / Filtre 5,5 MHz | 4555 84 14 |
| F 221 | Filter / Filter / Filtre / Filtre 5,5 MHz | 4555 84 25 |
| Anschlußleiste, 34 polig / Female plug, 34 fold<br>Réglette à douilles, 34 fois / Spinottiera, 34 poli | | 4145 16 75 |
| Gehäusedeckel / Cabinet can top<br>Boîtier parte supérior / Coperchio schermatura | | 8316 45 01 |
| Raststift / Plunger pins / Arrêts / Ambedue le spine | | 8642 75 02 |
| Antennenbuchse / Antenne socket<br>Prise pour antenne / Presa per antenna | | 4143 90 45 |

Bei Nachbestellungen von Manualen, Gerätetyp und Geräte-Ident-Nummer angeben.
When re-ordering manuals, please quote the model name and part number.
En cas de commande supplémentaire de manuels veuillez indiquer le type et le numéro de l'appareil.
Per riordinare i manuali, indicare il modello dell'apparecchio ed il numero categorico.

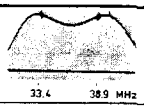
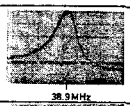
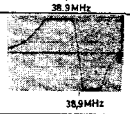
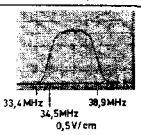
# Regolazione dell'immagine e del suono

**Strumenti di misura necessari:**

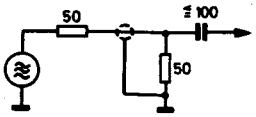
| | |
|---|---|
| Trasmettitore-vobulatore con generatore marcatore: | 30...42 MHz, uscita massima 200 mV |
| Generatore di misura: | 5,5 MHz, corsa ± 15 kHz, $f_{mod}$ = 1 kHz |
| Oscillografo: | sensibilità 10 mV/cm...1 V/cm |
| Raddrizzatore alte frequenze tasto per apparecchio di tensione di polarizzazione: | regolabile da 0 a 5 V |

**Preparazione:**

Verificare l'apparecchio di tensione di polarizzazione su TZ 30 U V 12 V ± 10% su TZ 23. I nuclei devono trovarsi sull'estremità superiore della bobina.

| No. di ord. | Stadio da compensare | Collegamento trasmettitore vobulatore | Collegamento oscillografo | Procedimento di compensazione | Oscillogrammi Osservazioni |
|---|---|---|---|---|---|
| 1.1 | **Filtro UHF/FI** | Circuito di misura 1. Vobulatore tramite 15 pF (tuner UHF), circa 300 mV. Mettere TP 203/204 a massa. | Collegare lo oscillografo a TP 101/TP 102 tramite tasto: ampiezza: 10 mV/cm vedi ill.1 | Con L 62 e L 64 regolare su ampiezza massima e tetto diritto (BT e TT devono avere la stessa altezza. La larghezza di banda può essere ridotta con L 68. |   |
| 1.2 | **UHF/VHF/ filtro FI** | Circuito di misura 1. Collegare vobulatore a TP 6 tramite 10 nF (tuner UHF); 20 mV circa; collegare TP 4 a massa. | Collegare lo oscillografo a TP 218/204 tramite tasto ampiezza: 20 mV/cm circa vedi ill. 2 | Con L 161 e L 162 regolare su ampiezza massima e tetto diritto (BT e FT devono avere la stessa altezza). | |
| 2. | **Circuito di riferimento** | Circuito di misura 2. Collegare vobulatore tras. smettitore di adattamento (4:1) a TP 201/202 (20 mV circa) | Oscillografo a TZ 24. Ampiezza: 450 mV/cm. | Regolare la marcatura di frequenza 38,9 MHz con L 206 su ampiezza massima. | Libero TZ 29   |
| 3. | **Dispositivo automatico di regolazione (Non in tutti, modulo 5829 01 11)** | Circuito di misura 2; collegare vobulatore a TP 201/202 tramite trasformatore di adattamento (4:1) 50 mV circa | Oscillografo a TP 205; ampiezza: 2 V/cm traccia del segnale a TZ 4 ≧ 1,5 V | Regolare la marcatura 38,9 MHz con L 205 sul passaggio zero. **Sintonizzazione perfetta AFC:** Collegare a TZ 29 una tensione regolabile da 2...10 V. Il passaggio della curva S per lo zero deve cambiare di ± > 250 kHz. |   |
| 4. | **Controllo della risposta armonica** | Smorzamento secondo il circuito di misura 3. Collegare TP 102 a massa tramite 2,2 nF. | | Regolare la marcatura di frequenza 38 MHz su 2 $V_{ss}$ = 0 dB con tensione di polarizzazione su TZ 30. La marcatura 38,9 MHz deve trovarsi tra – 5 dB e – 7 dB, la marcatura 34,5 MHz tra – 3 dB e – 5 dB. |   |
| | | Circuito di misura 2. Collegare il trasformatore di adattamento (4:1) a TP 203/204 (circa 150 mV) | Oscillografo a TZ 24; ampiezza: 0,5 V/cm | | |
| 5.0 | **Stadio alta e bassa frequenza** | Circuito di misura 4. Generatore di misure a TP 210, 5,5 MHz circa (10 mV circa) | Oscillografo a T 231. Ampiezza: 0,5 V/cm | Regolare L 226 su fattore di ditorsione min. e mass. delle basse frequenze. | |
| 6.0 | **Controllo del segnale video** | Tramite un emittente televisiva modulata conforme alle norme, la tensione di uscita video deve essere di 2 $V_{ss}$ ± 0,2 V. | | | |

## Meßschaltung 1
## Test circuits 1
## Circuito di misura 1

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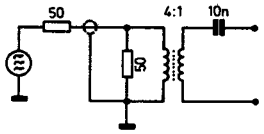
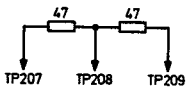
## Meßschaltung 2
## Test circuits 2
## Circuito di misura 2



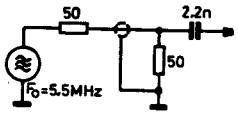

ZF-EINSPEISUNG
IF INPUT
ENTRATA FREQU. INTERMEDIA

## Meßschaltung 3
## Test circuits 3
## Circuito di misura 3




DÄMPFUNGSWIDERSTÄNDE
DAMPING RESISTORS
RESISTENZE DI SMORZAMENTO

## Meßschaltung 4
## Test circuits 4
## Circuito di misura 4




MESSENDER
SIGNAL GENERATOR
GENERATORE DI SEGNALI PER MISRA

Abb. 1
**Tastkopf für den HF-Abgleich (TP 101/102)**
**Probe for RF tuning**
**Tasto per la regolazione alte frequenze**

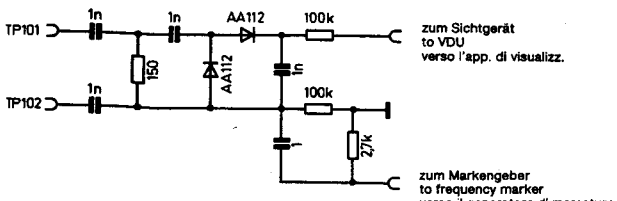
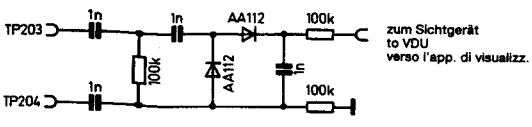
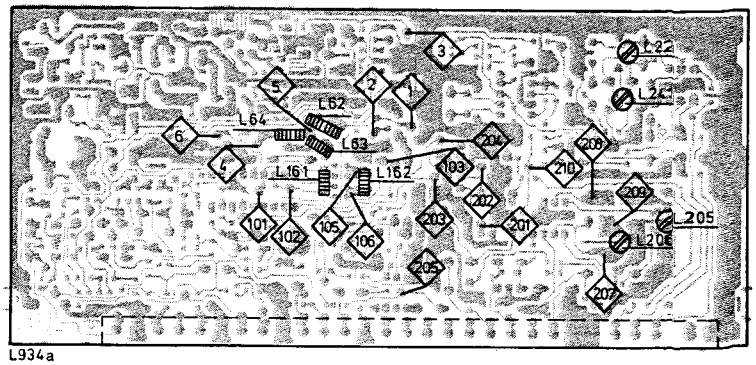


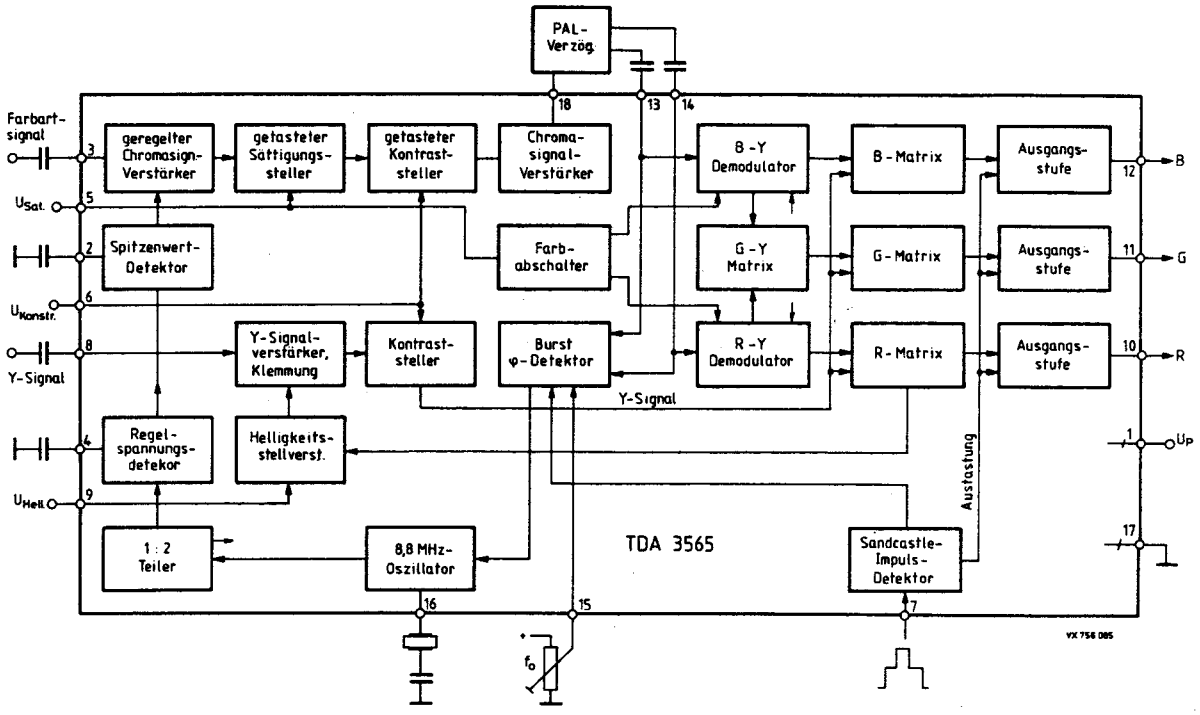

Abb. 2
**Tastkopf für den Abgleich der ZF-Spule**
**Probe for tuning of the IF coil**
**Tasto per la regolazione della bobina frequenza intermedia**




**Einsteller auf dem HF-ZF-NF Modul**
**Location of adjuster on RF-IF-AF module**
**Regolatore schema di ubicaz. su modulo MF-BF-AF**

# TDA 3565




## Abgleich für den Decoder 6911 30 31 Betriebsspannung 12 V ± 0,6 V kontrollieren.

| | | |
|---|---|---|
| 1. | **FHT-Oszillator** | Beliebiges PAL-Signal. TP 920 mit TP 921 (+ 12V) verbinden. TP 875 mit TP 876 kurzschließen. Mit R 874 auf stehende Farbinformation einstellen. Verbindung wieder lösen. |
| 2. | **PAL-Dematrix** | FHT-Oszillator muß eingestellt sein. PAL-Farbtestbild z.B. FuBK oder Philipsuniversaltestbild. Mit L 884 auf verschwindende Jalousie im Feld „G–Y = O"und R 883 auf verschwindende Jalousie in den Feldern „+ V" und „± U" des Testbildes einstellen. Abgleich wechselseitig wiederholen. |
| **Schwarzabgleich, Weißabgleich** | | Alle Schwarzabgleicheinsteller (auf der Bildröhrenanschlußplatte) auf max. Schwarzwert (Anschlag Masse) und alle Weißabgleicheinsteller (auf der Bildröhrenanschlußplatte) auf max. Verstärkung einstellen. TP 401/402/403 verbinden und mit Helligkeitseinsteller 5,0 V ± 0,2 V an Pin DC 4 einstellen. Farbstärke auf Minimum. $U_{G2}$ mit R 1004 so einstellen, daß auf dem Bildschirm ein Strich gerade sichtbar wird. Jeweiligen Schwarzabgleicheinsteller langsam aufdrehen, bis die Striche zusammen Weiß ergeben. Mindestens ein Einsteller sollte auf Anschlag bleiben. Verbindungen wieder trennen. Mit den Weißabgleicheinstellern ist die Wiedergabe des Gerätes so einzustellen, daß der Bildschirm keinen Farbstich aufweist. |

## Decoder alignment 6911 30 31 Check the operating voltage to be 12 V ± 0.6 V.

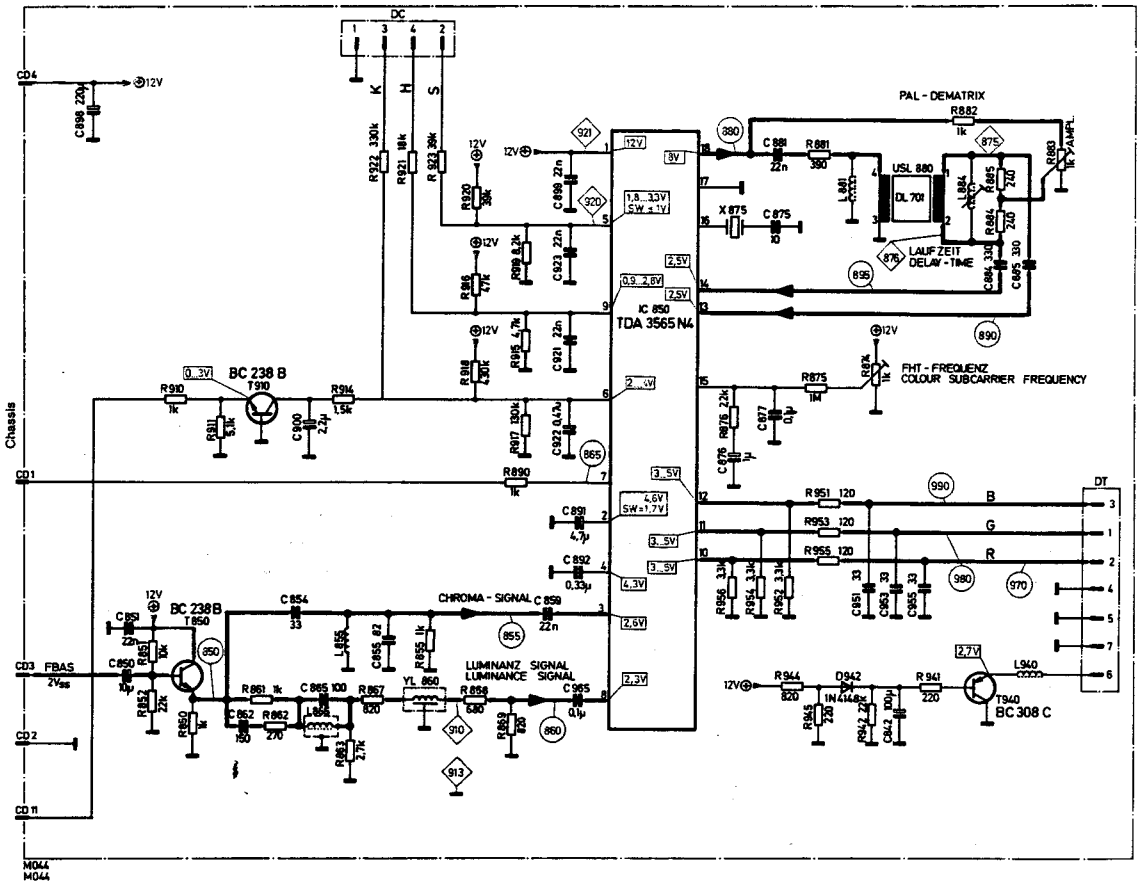
| | | |
|---|---|---|
| 1. | **Sub-carrier oscillator** | Signal: optional PAL. Galvanically connect TP 920 to TP 921 (+ 12V) and TP 875 to TP 876 with R 874 of stationary colours on screen. Terminate the connections again after alignment. |
| 2. | **PAL dematrix** | **Note:** Before performing this alignment it is necessary to first the sub-carrier oscillator and chroma trap. Signal: PAL test picture (e.g. FuBK or Philips universal test picture). Adjust L 884 for minimum Hanover bars in the "G–Y = O" area. Adjust R 883 for minimum Hanover bars in the "+ V" and "± U" areas of the test picture. Repeat these adjustments alternately. With PAL SECAM decoder: SECAM colour pattern. Adjust R 883 for minimum Hanover bars. |
| **Black level (halftone) adjustment Monochrome adjustment** | | All black level controls (c.r.t. base) to maximum (earthside stop). All drive controls (c.r.t. base) to maximum amplification. Connect TP 401/402/403 and adjust 5.0 V ± 0.2 V on Pin DC 4. Colour saturation to minimum. Adjust $E_{G2}$ ($U_{G2}$) with R 1004 to where a line is barely visible on the screen. Open the black level controls slowly until lines are of equal brightness. At least of the black level controls should remain at its earthside stop. Remove the links between. Adjust the dirve controls so that the picture shows no colour tint. |

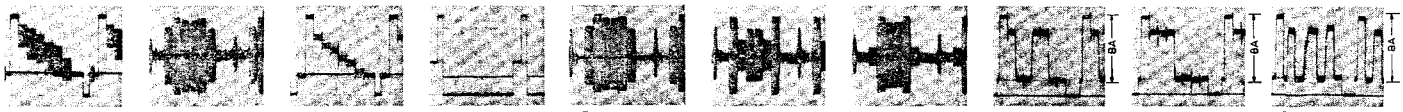
## Regolazione per il decodificatore 6911 30 31

| | | |
|---|---|---|
| 1. | **Oscillatore FHT** | Segnale PAL a scelta. Collegare TP 920 con TP 921 (+ 12 V). Cortocircuitare TP 875 con TP 876. Con R 874 regolare in modo da ottenere un'informazione cromatica quasi stabile. Separare nuovamente il collegamento. |
| 2. | **Dematrice PAL** | L'oscillatore FHT ed il circuito antidisturbi devono essere inseriti. Monoscopio colori PAL, per esempio FuBK o monoscopio universale Philips. Con L 884 regolare in modo da ottenere una sparizione delle striscie nel campo «G–Y = O» e con R 883 fare lo stesso nei campi «+ V» e «± U» del monoscopio. Ripetere la compensazione alternativamente. |
| **Regolazione del nero, regolazione del bianco** | | Regolare tutti i regolatori per la regolazione del nero (sulla piastra di collegamento del monoscopio) sul valore nero mass. (fine massa) e tutti i regolatori per la regolazione del bianco (piastra di collegamento del monoscopio) sull'amplificazione massima. Collegare TP 401/402/403 e regolare su 5,0 V ± 0,2 V al punto di collegamento decodif. DC 4. Regolare la saturazione cromatica al minimo. Regolare $U_{G2}$ con R 1004, in modo che sullo schermo divenga appena visibile una striscia. Girare lentamente il compensatore del nero corrispondente, fino a che le striscie generino insieme il bianco. Almeno un regolatore dovrebbe restare in posizione d'arresto. Separare nuovamente i collegamenti. Regolare la riproduzione dell'apparecchio mediante i regolatori di regolazione del bianco, in modo che non vi sia un aspetto grigiastro dei pigmenti bianchi sullo schermo. |

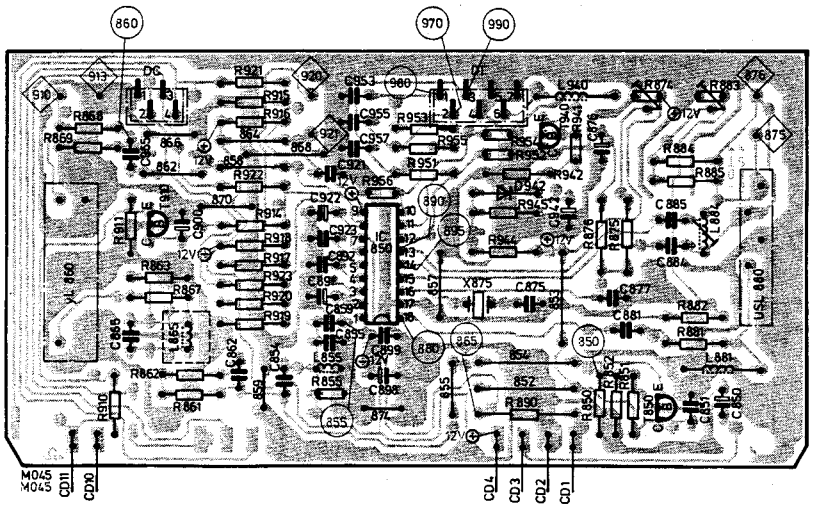
# PAL-Decoder (SR 2)

6911 30 31



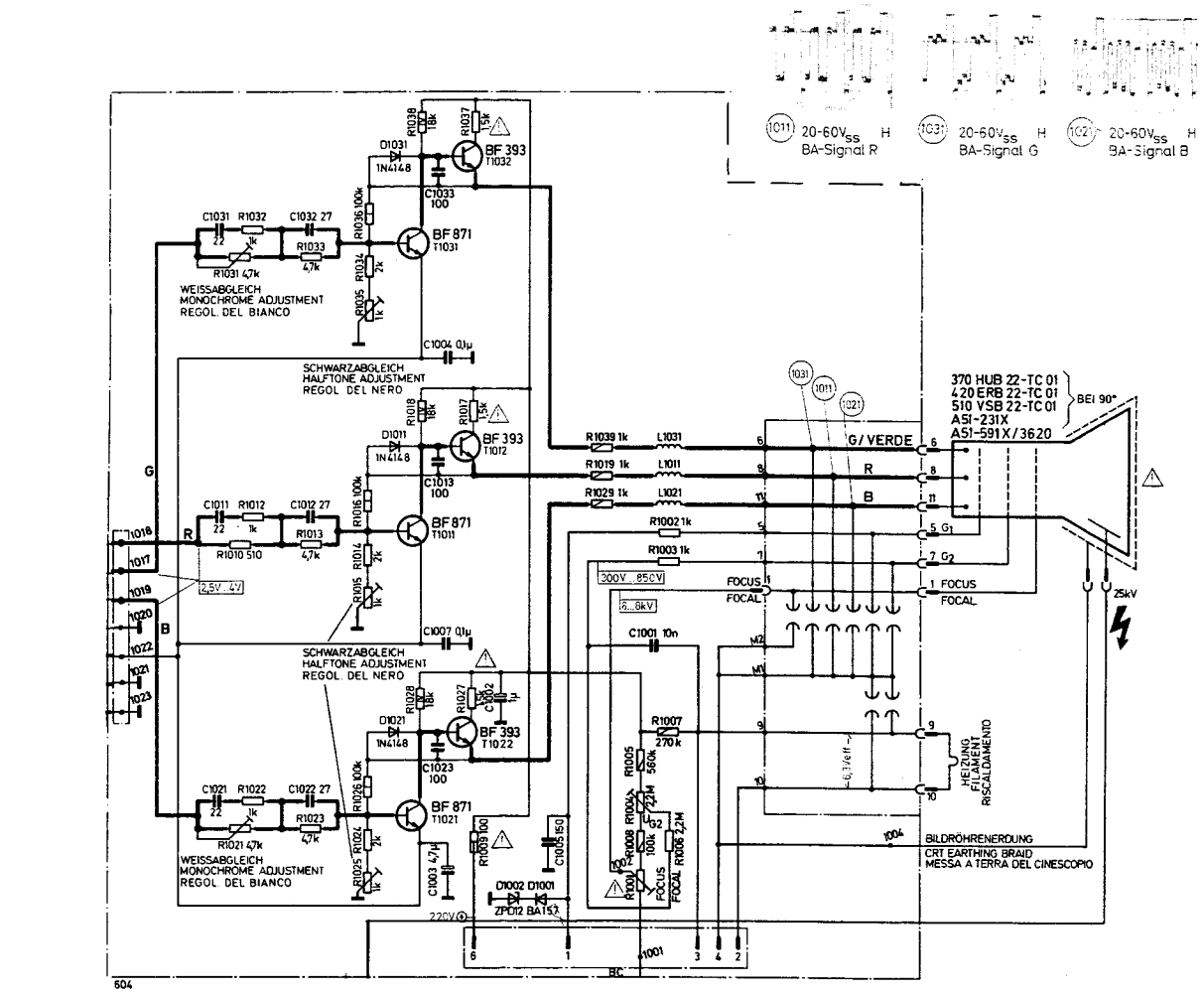



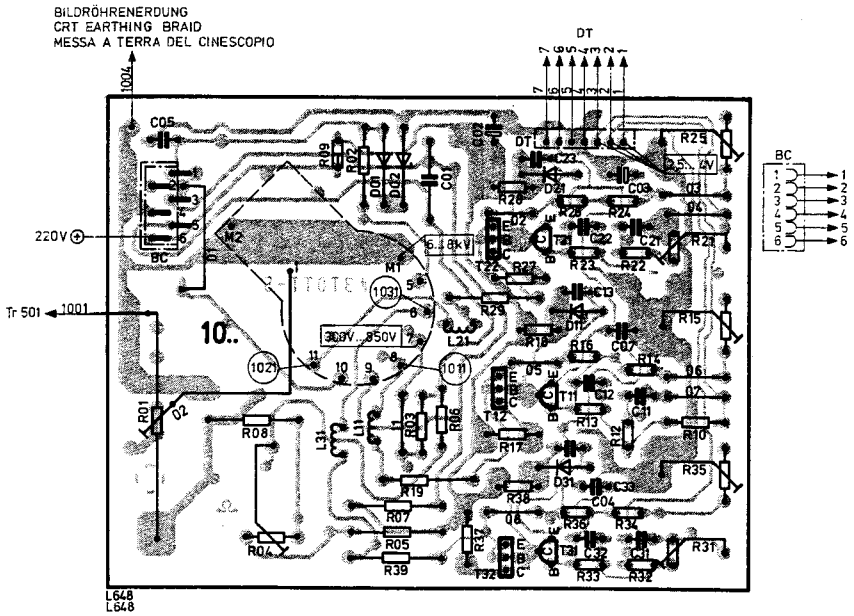
(850) 2Vss H (855) 500mVss H (860) 360mVss H (865) 9...12V H (880) ca. 2Vss H (890) ca.200mVss H (895) ca.300mVss H (970) 4...5V BA H (980) 4...5V BA H (990) 4...5V BA H



# Bildröhrenanschlußplatte
# C.R.T. base board
# Platine-connexion tube-cathodique
# Piastra di allac. del cinescopio

6911 39 39



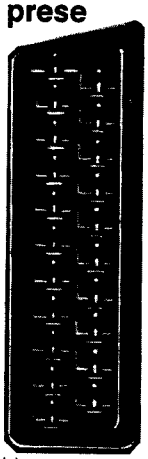
| Gegenstand<br>Item<br>Ricambi | | | Bestell-Nr.<br>Order no.<br>No. di rif. |
|---|---|---|---|
| **Bildröhrenanschlußplatte**<br>**C.R.T. base**<br>**Piastra di allacciamento del cinescopio** | | | **6911 39 39** |
| T 1011, 1021, 1031 | | BF 871 | 3612 52 81 |
| T 1012, 1022, 1032 | | BF 420 | 3612 52 25 |
| D 1001 | | BA 157 | 3656 10 09 |
| D 1002 | | ZPD 12 | 3653 17 29 |
| D 1011, 1021, 1031 | | 1 N 4148 | 3656 08 10 |
| R 1001 | | Focus | ⚠ 3722 20 77 |
| R 1004 | 2,2 MΩ | $U_{G2}$ | 3111 62 74 |
| R 1009 | 100 Ω 0,25 W | Sich.-Widerstand<br>Fuse resistor<br>Resistenza del fusibile | 3151 45 16 |
| R 1015, 1025, 1035 | 1 kΩ | Schwarzabgleich<br>Halftone adjustment<br>Regolazione del nero | 3111 09 62 |
| R 1021, 1031 | 4,7 kΩ | Weißabgleich<br>Monochrome adjustment<br>Regolazione del bianco | 3111 36 56 |
| L 1011, 1021, 1031 | | Drossel / Choke / Bobina | 4557 16 32 |
| Bildröhrenerdung<br>Picture tube earth connection<br>Collegamento a massa | | | 4888 90 65 |
| Bildröhrenfassung<br>Picture tube socket<br>Zoccolo del cinescopio | | | 4155 40 20 |

| Gegenstand<br>Item<br>Ricambi | | | Bestell-Nr.<br>Order no.<br>No. di rif. |
|---|---|---|---|
| **PAL-Decoder (SR 2)** | | | **6911 30 31** |
| IC 850 | | TDA 3565 N | 3765 13 53 |
| T 850, 910 | | BC 548 B-SB 36412 | 3614 59 24 |
| T 940 | | BC 558 C-SB 36412 | 3614 65 25 |
| D 942 | | 1 N 4148 | 3656 08 10 |
| R 874 | 1 kΩ | FHT-Frequenz<br>FHT-frequency<br>Frequenza ansillare colore | 3111 36 64 |
| R 883 | 1 kΩ | Amplitude<br>Amplificatore | 3111 36 64 |
| L 852, 855 | | Drossel / Choke / Bobina | 4557 16 31 |
| L 881 | | Drossel / Choke / Bobina | 4557 15 06 |
| L 884 | | Laufzeit / Delay / Linea del tempo | 4555 24 55 |
| L 940 | | Drossel / Choke / Bobina | 4557 15 15 |
| F 860 | | Filter 4,43 MHz | 4555 84 17 |
| X 875 | | Quarz 8,867238 MHz<br>Quartz 8,867238 MHz<br>Quarzo 8,867238 MHz | 4421 31 75 |
| USL 880 | | Verzögerungs-Leitung DL 700/701<br>Delay Line<br>Linea di ritardo | 4342 11 15 |
| YL 860 | | Lum.-Laufzeitleitung<br>Y-delay line<br>Linea del tempo di transito lum. | 4588 01 35 |

BC
1
2
3
BC 4
5
6

◀ **Reparaturhilfe zum Schaltnetzteil**
**Service aids to be switched-mode power supply**
**Aide de dépannage pour le circuit d'alim. à decoupage**
**Aiuti per il servizio per alimentazione commutazione**

## SCART-Buchsenbelegung / Connections socket
## Occupation des connexions de la priseperitel (SCART) / Occupazione delle prese




Kontakt / Pin / Contact / Contatto 1 : Audio-Ausgang Kanal B / Audio output channel B / sortie audio canal B / uscita audio canale B
0,5 V–2 V an / on / sur / su Z ≦ 1 kHz (20 Hz–20 kHz)

Kontakt / Pin / Contact / Contatto 2 : Audio-Eingang Kanal B / Audio input channel B / entrée audio canal B / entrata audio canale B
0,2 V–2 V an / on / sur / su Z ≧ 10 kΩ

Kontakt / Pin / Contact / Contatto 3 : Audio-Ausgang Kanal A / Audio output channel A / sortie audio canal A / uscita audio canale A
0,5 V–2 V an / on / sur / su Z ≦ 1 kΩ (20 Hz–20 kHz)

Kontakt / Pin / Contact / Contatto 4 : Audio-Masse / Earth / masse audio / audio-massa

Kontakt / Pin / Contact / Contatto 5 : Blau-Masse / Blue earth / masse bleu / blu-massa

Kontakt / Pin / Contact / Contatto 6 : Audio-Eingang A / Audio input A / entrée audio A / entrata audio A

Kontakt / Pin / Contact / Contatto 7 : Blau-Signal / Blue signal / signal bleu / segnale blu
0,7 V (± 3 dB) an / on / su Z = 75 Ω
überlagerte DC = 0 V bis 2 V
superimposed DC = 0 V to 2 V
c.c. superposé = de 0 V à 2 V
c.c. sovrapposta = da 0 V a 2 V

Kontakt / Pin / Contact / Contatto 8 : Schaltspannung / Switch voltage / tension de commutation / tensione di commutazione
0 V bis / with / à / a 2 V logisch / logique / logico 0 ≙ FS/RF-Empfang / Receif / réception / ricezione
9,5 V bis / with / à / a 12 V logisch / logique / logico 1 ≙ PPT-Empfang / Receif / réception / ricezione
Ze = ≧ 10 kΩ / ≦ 2 nF

Kontakt / Pin / Contact / Contatto 9 : Grün-Masse / Green earth / masse verte / verde-massa

Kontakt / Pin / Contact / Contatto 11: Grün-Signal (siehe Blau-Signal) / Green signal (see blue signal) / signal vert (cf. signal bleu) / segnale verde (vedi segnale blu)

Kontakt / Pin / Contact / Contatto 13: Rot-Masse / Red earth / masse rouge / rosso-massa

Kontakt / Pin / Contact / Contatto 14: Austastsignal Masse / Blanking signal earth / Signal de suppression / Massa cancellazione

Kontakt / Pin / Contact / Contatto 15: Rot-Signal (siehe Blau-Signal) / Red signal (see blue signal) / signal rouge (cf. signal bleu) / segnale rosso (vedi segnale blu)

Kontakt / Pin / Contact / Contatto 16: Austast-Signal (Status) / Blanking signal / signal de suppression (état) / segnale di eliminazione (stato)
0 V bis / with / à / a 0,4 V logisch / logique / logico 0 an / on / sur / su Z = 75 Ω
1 V bis / with / à / a 3 V logisch / logique / logico 1 an / on / sur / su Z = 75 Ω

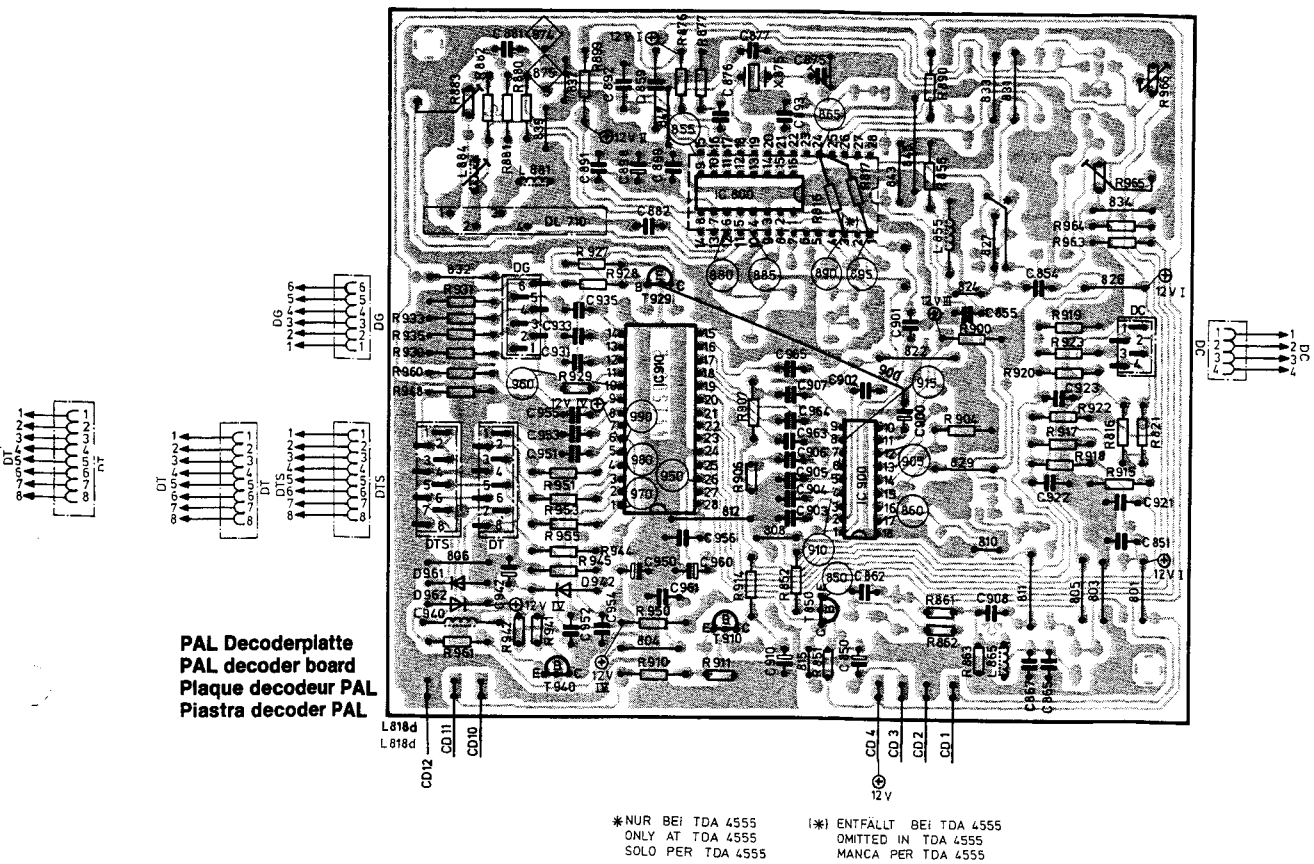
Kontakt / Pin / Contact / Contatto 17: Video-Masse / earth / masse vidéo / video-massa

Kontakt / Pin / Contact / Contatto 18: Austast-Signal-Masse / Blanking signal earth / signal de suppression masse / segnale di eliminazione-massa

Kontakt / Pin / Contact / Contatto 19: Video-Ausgang / output / sortie vidéo / uscita video
1 V (± 3 dB) an / on / sur / su Z = 75 Ω

Kontakt / Pin / Contact / Contatto 20: Video-Eingang / input / entrée vidéo / entrata video
1 V (± 3 dB) an / on / sur / su Z = 75 Ω

Kontakt / Pin / Contact / Contatto 21: Steckerabschirmung und/oder Masse / Plug shielding and/or earth / blindage de fiches et/ou masse / schermatura presa e/o massa

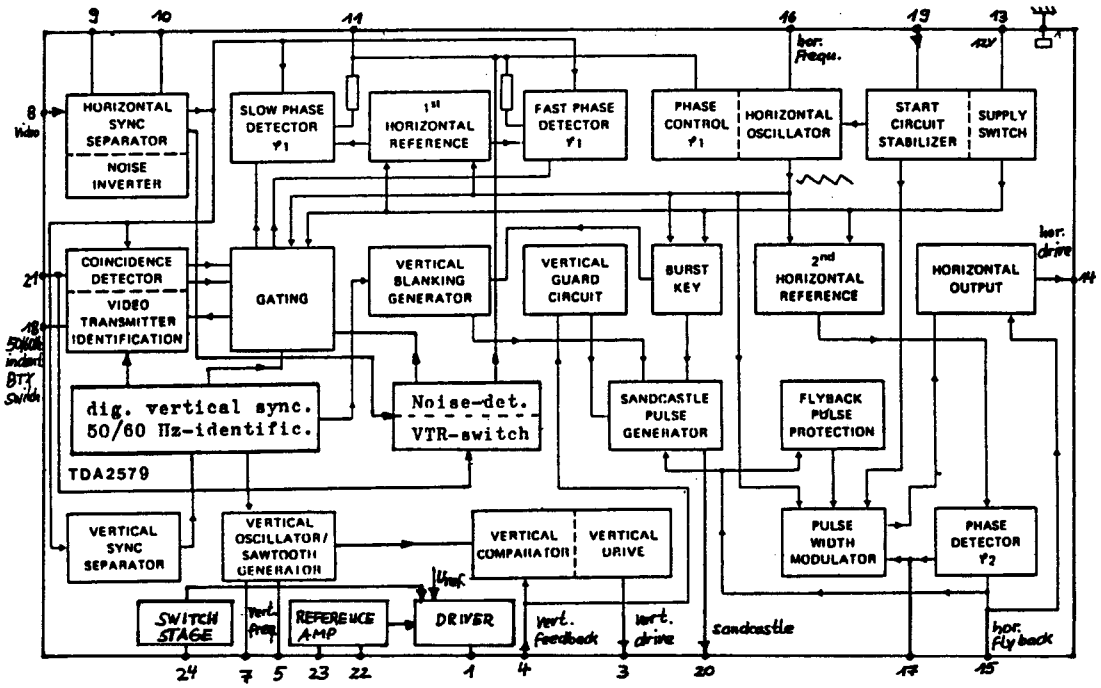



**PAL Decoderplatte**
**PAL decoder board**
**Plaque decodeur PAL**
**Piastra decoder PAL**

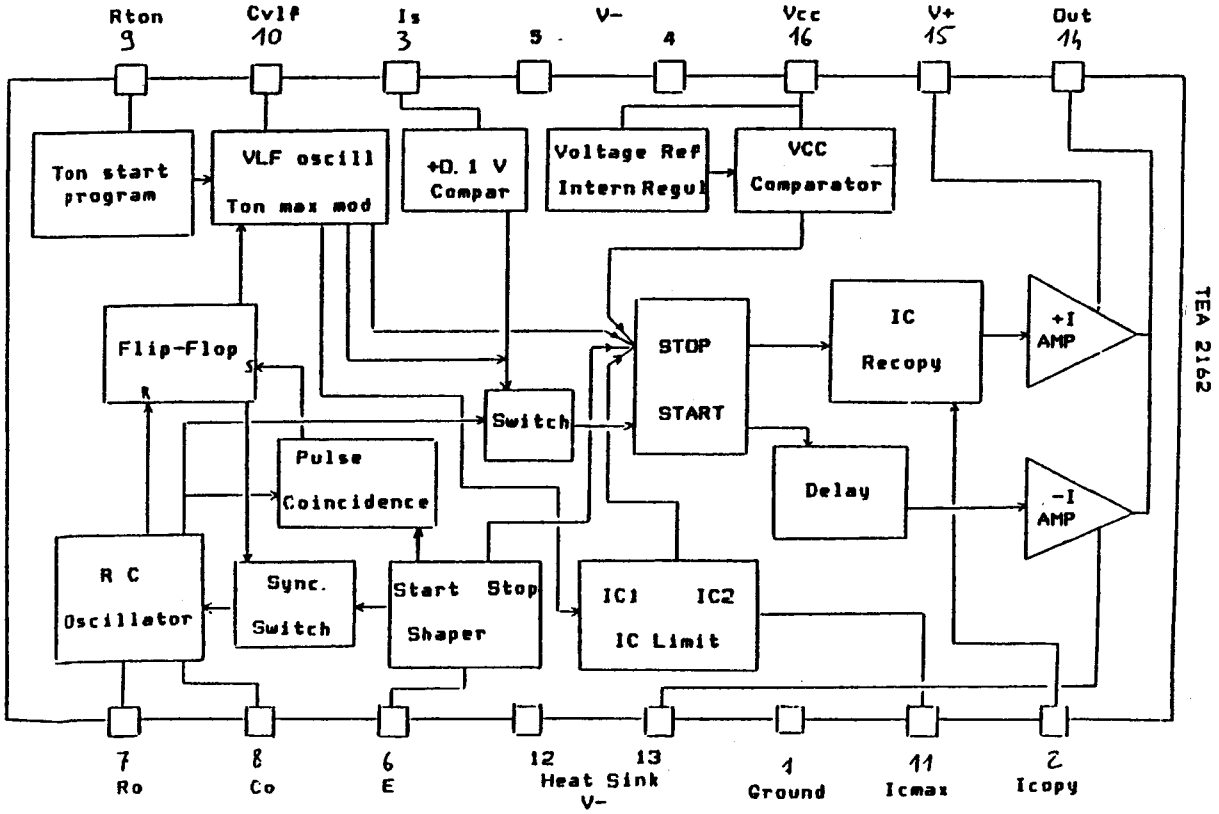
✱NUR BEI TDA 4555
ONLY AT TDA 4555
SOLO PER TDA 4555

(✱) ENTFÄLLT BEI TDA 4555
OMITTED IN TDA 4555
MANCA PER TDA 4555

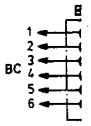
## TDA 8371



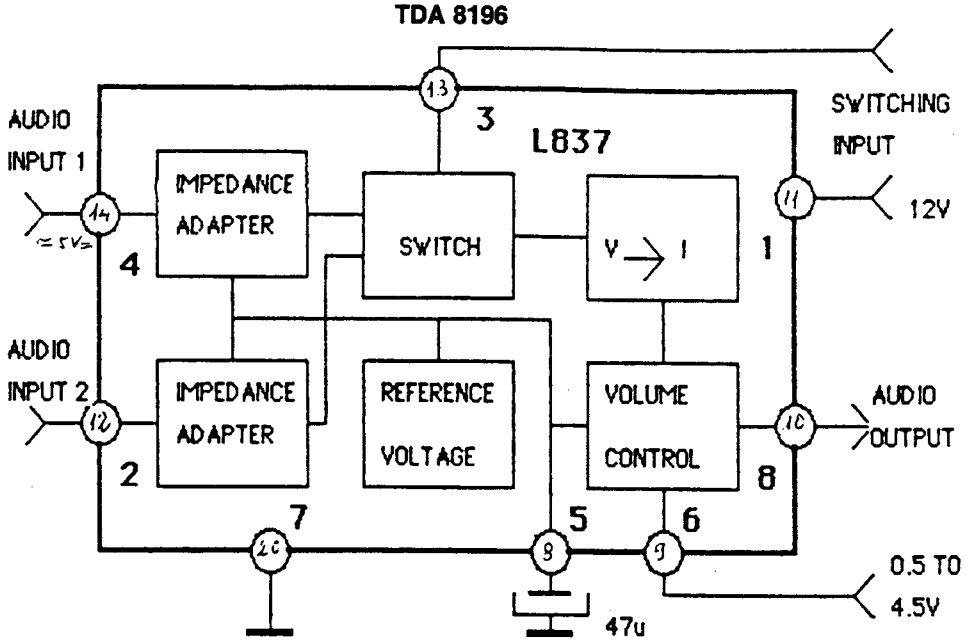

## TEA 2162



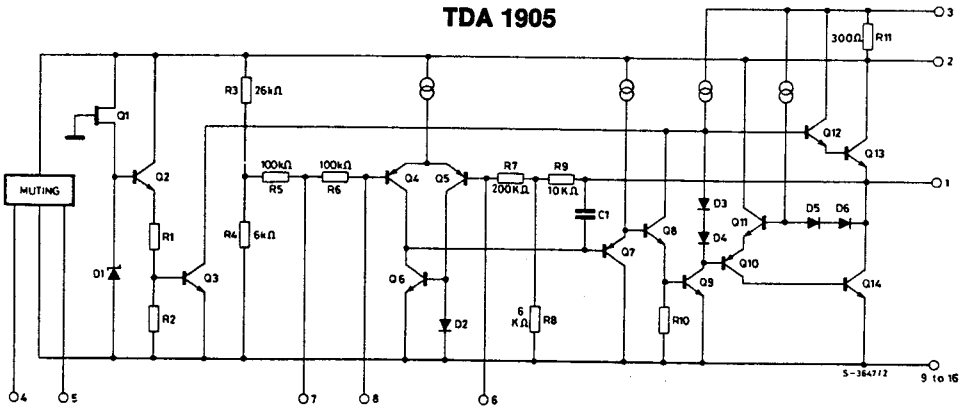
# Blockschaltbilder von der Innenbeschaltung der IC's
# Block diagrams of IC circuits
# Synoptiques mod. du circuit intérieur des IC
# Schemi a blocchi del circuito interno degli IC



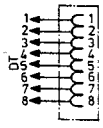
## TDA 8196

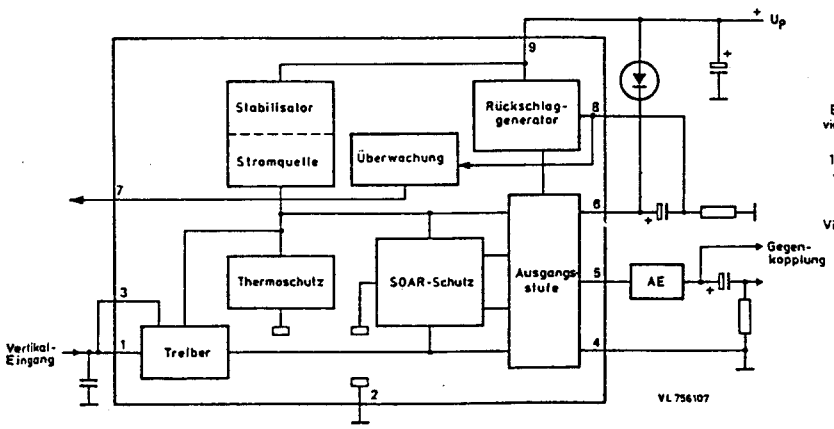



## TDA 1905

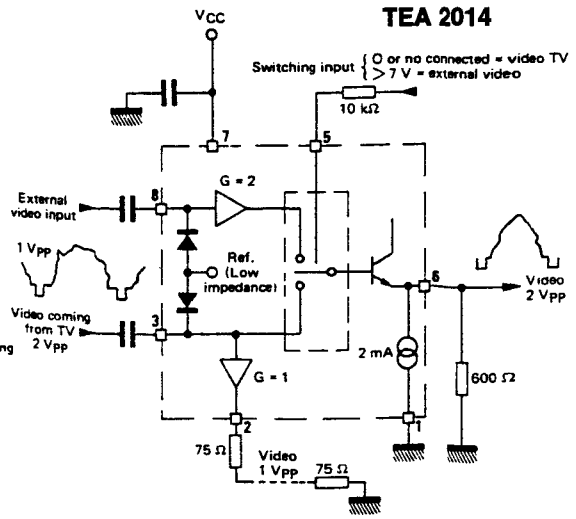



## TDA 3654

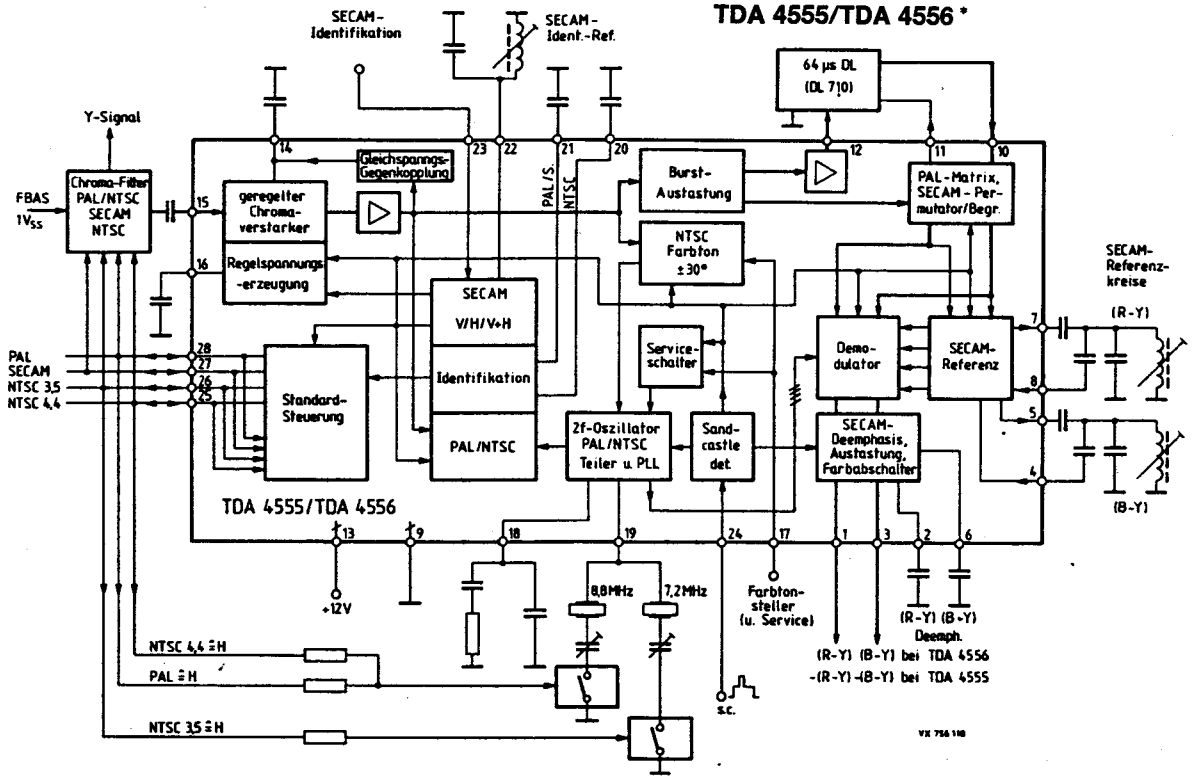




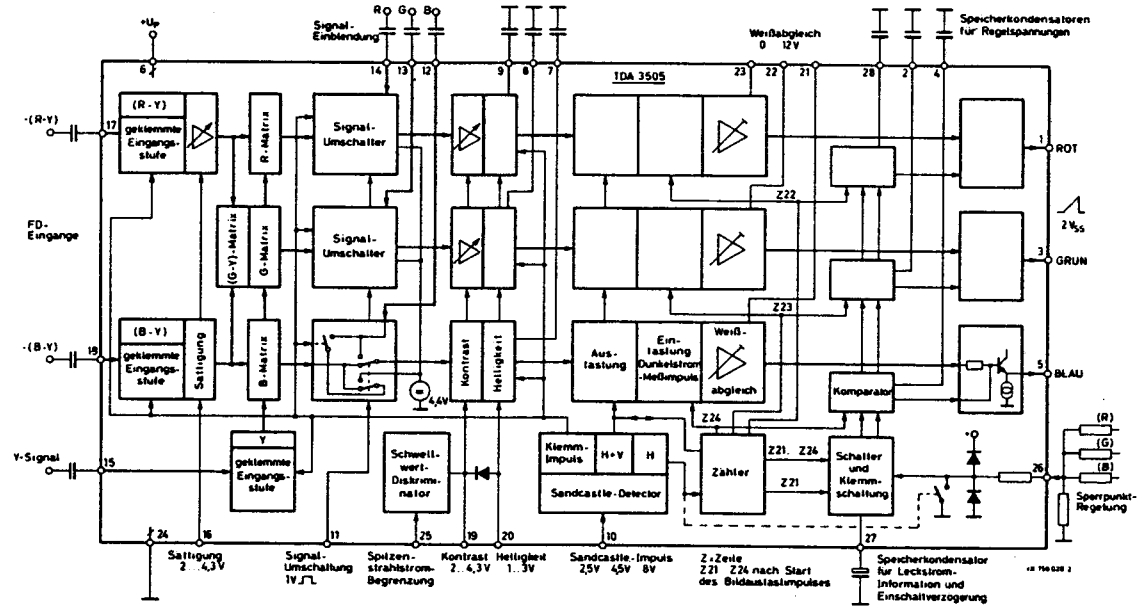

## TEA 2014



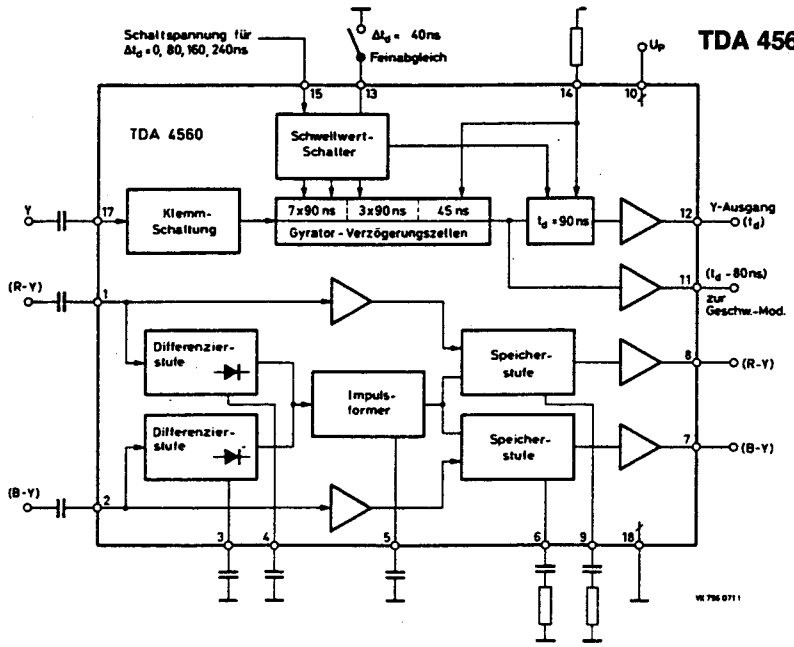
## TDA 4555/TDA 4556 *




## TDA 3505 *




## TDA 4565 *




Quelle: Valvo-Datenbuch *

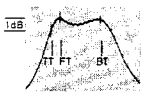
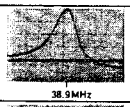
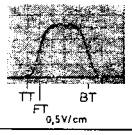
# Picture and sound IF-adjustment

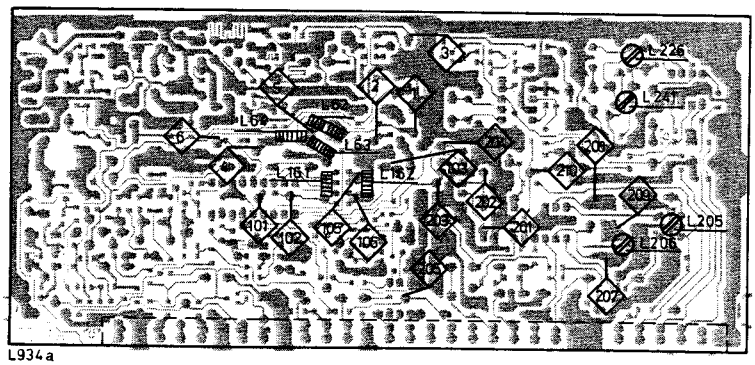
**Required measuring equipment:**

| | |
|---|---|
| Sweep generator with marker transmitter: | 30...42 MHz, max. output 200 mV |
| Signal generator: | 5.5 MHz, dispersion ± 15 kHz, $f_{mod}$ = 1 kHz |
| Oscillograph: | Sensitivity 10 mV/cm...1 V/cm |
| RF rectifier probe | |
| Bias voltage instrument: | adjustable from 0...5 V |

**Preparations:**

Bias voltage instrument to TZ 30. Check U V 12 V ± 10% at TZ 23. The cores must be at the upper end of the coil.

| No. | Stage to be adjusted | Connect. sweep gen., transm. | Connect. oscillor. | Adjustment procedure | Oscillograms Remarks |
|---|---|---|---|---|---|
| 1.1 | **UHF/IF filter** | Test circuit 1. Sweep gen. via 15 pF to TP 2 (UHF tuner) approx. 300 mV TP 203/204 to earth | Oscillo. via probe to TP 101/102. Amplitude: 10 mV/cm. See Fig. 1 | Adjust to max. amplitude and level roof with L 62 and L 64. (VC and SC must have the same height). Bandwidth can be narrowed with L 63. | |
| 1.2 | **UHF/VHF/IF-filter** | Test circuit 1. Sweep gen. via 10 nF to TP 6 (UHF tuner) approx. 20 mV TP 4 to earth. | Oscillo. via probe to TP 203/204. Amplitude: approx. 20 mV/cm. See Fig. 2 | Adjust to max. amplitude and level roof with L 161 and L 162 (BT and FT must have the same height). |   |
| 2. | **Reference circuit** | Test circuit 2. Sweep gen. via interstage transformer (4:1) to TP 201/202 (approx. 20 mV) | Oscillo. to TZ 24. Amplitude 450 mV/cm. | Tune frequency marker 38.9 MHz to max. amplitude with L 206. | TZ 29 free   |
| 3. | **AFC (Not in module 5829 01 11)** | Test circuit 2. Sweep gen. via interstage transformer (4:1) to TP 201/202 approx. 50 mV. | Oscillo. to TP 205. Amplitude: 2 V/cm. Signalling vol. to TZ 24 ≧ 1.5 V | Tune marker 38 MHz (BT) to zero with L 205. **AFC fine tuning:** Apply a voltage adjustable from 2...10 V to TZ 29. The zero passage of the S curve must change by ± > 250 kHz. | |
| 4. | **Monitoring of IF frequency response** | Attenuation acc. to test circuit 3. TP 102 to earth via 2.2 nF. | | Set frequency marker 37,1 MHz to 2 $V_{ss}$ – 0 dB with bias voltage at TZ 30. Marker 38 MHz (BT) should lie between – 5 dB and – 7 dB, marker 33.6 MHz between – 3 dB and – 5 dB. |   |
| | | Test circuit 2. Sweep gen. via interstage transf. (4:1) to TP 203/204 (approx. 150 mV) | Oscillo. to T 231. Amplitude: 0,5 V/cm | | |
| 5. | **DF-AF stage Module 5829 03 02 Module 5829 04 02 Module 5829 03 12 Module 5829 04 12** | Test circuit 4. 1. Signal generator to TP 210 5.5 MHz (approx. 10 mV) 2. Signal generator to TP 210 6.5 MHz (approx. 10 mV) | Oscillo. to T 31. Amplitude 0.5 V/cm. | 1. Tune L 240 to AF max. and min. distortion factor. 2. Tune L 241 to AF max. and min. distortion factor. | |
| 6. | **Monitoring of video signal** | With the aid of a standard modulated TV transmitter, the video output voltage should be 2 $V_{ss}$ ± 0.2 V. | | | |




L934a

**Einsteller auf dem HF-ZF-NF Modul**
**Location of adjuster on RF-IF-AF module**
**Regolatore schema di ubicaz. su modulo MF-BF-AF**

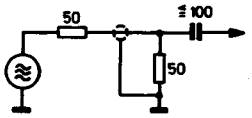
2V

CHASSIS BOARD
PIASTRA CHASSIS

5V

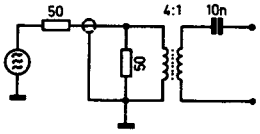
12V

## Meßschaltung 1
## Test circuits 1
## Circuito di misura 1



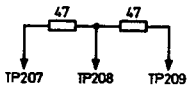

WOBBLER
SWEEP GENERATOR
VOBULATORE

## Meßschaltung 2
## Test circuits 2
## Circuito di misura 2



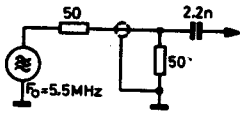

ZF-EINSPEISUNG
IF INPUT
ENTRATA FREQU. INTERMEDIA

## Meßschaltung 3
## Test circuits 3
## Circuito di misura 3




DÄMPFUNGSWIDERSTÄNDE
DAMPING RESISTORS
RESISTENZE DI SMORZAMENTO

## Meßschaltung 4
## Test circuits 4
## Circuito di misura 4




MESSENDER
SIGNAL GENERATOR
GENERATORE DI SEGNALI PER MISURA

Abb. 1
**Tastkopf für den HF-Abgleich (TP 101/102)**
**Probe for RF tuning**
**Tasto per la regolazione alte frequenze**

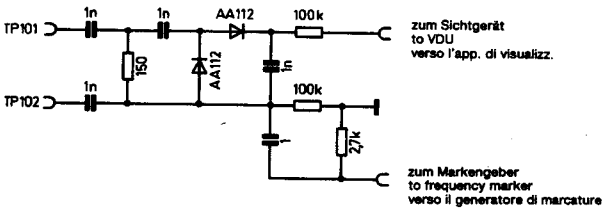
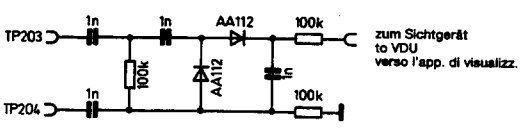



Abb. 2
**Tastkopf für den Abgleich der ZF-Spule**
**Probe for tuning of the IF coil**
**Tasto per la regolazione della bobina frequenza intermedia**



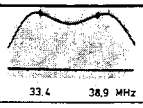
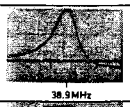
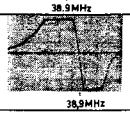
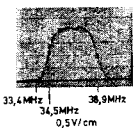
# Bild- und Ton-ZF-Abgleich

**Erforderliche Meßgeräte:**

| | |
|---|---|
| Wobbelsender mit Markengeber: | 30...42 MHz, max. Output 200 mV |
| Meßsender: | 5,5 MHz, Hub ± 15 kHz, $f_{mod}$ = 1 kHz |
| Oszillograph: | Empfindlichkeit 10 mV/cm...1 V/cm |
| HF-Gleichrichter-Tastkopf | |
| Vorspannungsgerät: | einstellbar von 0...5 V |

**Vorbereitungen:**

Vorspannungsgerät an TZ 30. U V 12 V ± 10% an TZ 23 kontrollieren. Die Kerne müssen am oberen Spulenende stehen.

| Lfd. Nr. | Abzugleichende Stufe | Anschluß Sender, Wobbler | Anschluß Oszillograph | Abgleichvorgang | Oszillogramme Bemerkungen |
|---|---|---|---|---|---|
| 1.1 | **UHF/ZF-Filter** | Meßschaltung 1. Wobbler über 15 pF an TP 2 (UHF-Tuner) ca. 300 mV. TP 203/204 auf Masse legen. | Oszillograph über Tastkopf an TP 101/TP 102. Amplitude: 10 mV/cm. siehe Abb. 1 | Mit L 62 und L 64 auf max. Amplitude und gerades Dach abgleichen (BT und TT muß gleiche Höhe haben). Mit L 63 kann die Bandbreite schmaler eingestellt werden. |   |
| 1.2 | **UHF/VHF/ZF-Filter** | Meßschaltung 1. Wobbler über 10 nF an TP 6 (UHF-Tuner) ca. 20 mV. TP 4 auf Masse legen. | Oszillograph über Tastkopf an TP 203/204. Amplitude: ca. 20 mV/cm. siehe Abb. 2 | Mit L 161 und L 162 auf max. Amplitude und gerades Dach abgleichen (BT und FT muß gleiche Höhe haben). | |
| 2. | **Referenzkreis** | Meßschaltung 2. Wobbler über Anpaßübertr. (4:1) an TP 201/202 (ca. 20 mV) | Oszillograph an TZ 24. Amplitude: 450 mV/cm. | Die Frequenzmarke 38,9 MHz mit L 206 auf max. Amplitude abgleichen. | TZ 29 frei   |
| 3. | **Nachstimm-automatik (Nicht im Modul 5829 01 11)** | Meßschaltung 2. Wobbler über Anpaßübertr. (4:1) an TP 201/202. ca. 50 mV | Oszillograph an TP 205. Amplitude: 2 V/cm. Signalsp. an TZ 24 ≧ 1,5 V | Marke 38,9 MHz mit L 205 auf Nulldurchgang einstellen. **AFC-Feinabstimmung:** An TZ 29 eine Spannung einstellbar von 2...10 V legen. Der Nulldurchgang der S-Kurve muß sich um ± > 250 kHz ändern. |   |
| 4. | **Kontrolle des ZF-Frequenz-ganges** | Dämpfung nach Meßschaltung 3. TP 102 über 2,2 nF an Masse legen. | | Die Frequenzmarke 38 MHz auf 2 $V_{ss}$ ≙ 0 dB mit Vorsp. an TZ 30 einst. Die Marke 38,9 MHz soll zwischen – 5 dB und – 7 dB, die Marke 34,5 MHz zwischen – 3 dB und – 5 dB liegen. |   |
| | | Meßschaltung 2. Wobbler über Anpaßübertr. (4:1) an TP 203/204 (ca. 150 mV) | Oszillograph an TZ 24. Amplitude: 0,5 V/cm | | |
| 5.0 | **DF-NF-Stufe** | Meßschaltung 4. Meßsender an TP 210 ca. 5,5 MHz (ca. 10 mV). | Oszillograph an TZ 31. Amplitude 0,5 V/cm. | L 226 auf NF-Maximum und min. Klirrfaktor abgleichen. | |
| 6.0 | **Kontrolle des Video-Signal** | Mittels normgerecht modulierten Fernsehsender muß die Video-Ausgangssp. 2 $V_{ss}$ ± 0,2 V betragen. | | | |

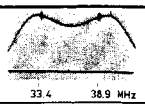
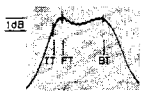
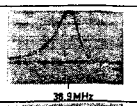
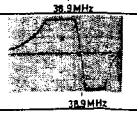
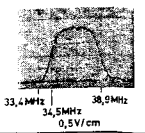
# Picture and sound IF-adjustment

**Required measuring equipment:**

| | |
|---|---|
| Sweep generator with marker transmitter: | 30...42 MHz, max. output 200 mV |
| Signal generator: | 5.5 MHz, dispersion ± 15 kHz, $f_{mod}$ = 1 kHz |
| Oscillograph: | Sensitivity 10 mV/cm...1 V/cm |
| RF rectifier probe | |
| Bias voltage instrument: | adjustable from 0...5 V |

**Preparations:**

Bias voltage instrument to TZ 30. Check U V 12 V ± 10% at TZ 23. The cores must be at the upper end of the coil.

| No. | Stage to be adjusted | Connect. sweep gen., transm. | Connect. oscillor. | Adjustment procedure | Oscillograms Remarks |
|---|---|---|---|---|---|
| 1.1 | **UHF/IF filter** | Test circuit 1. Sweep gen. via 15 pF to TP 2 (UHF tuner) approx. 300 mV TP 203/204 to earth | Oscillo. via probe to TP 101/102. Amplitude: 10 mV/cm. See Fig. 1 | Adjust to max. amplitude and level roof with L 62 and L 64. (VC and SC must have the same height). Bandwidth can be narrowed with L 63. |   |
| 1.2 | **UHF/VHF/IF-filter** | Test circuit 1. Sweep gen. via 10 nF to TP 6 (UHF tuner) approx. 20 mV TP 4 to earth. | Oscillo. via probe to TP 203/204. Amplitude: approx. 20 mV/cm. See Fig. 2 | Adjust to max. amplitude and level roof with L 161 and L 162 (BT and FT must have the same height). |   |
| 2. | **Reference circuit** | Test circuit 2. Sweep gen. via interstage transformer (4:1) to TP 201/202 (approx. 20 mV) | Oscillo. to TZ 24. Amplitude 450 mV/cm. | Tune frequency marker 38.9 MHz to max. amplitude with L 206. | TZ 29 free   |
| 3. | **AFC (Not in module 5829 01 11)** | Test circuit 2. Sweep gen. via interstage transformer (4:1) to TP 201/202 approx. 50 mV. | Oscillo. to TP 205. Amplitude: 2 V/cm. Signalling vol. to TZ 24 ≧ 1.5 V | Tune marker 38.9 MHz to zero with L 205. **AFC fine tuning:** Apply a voltage adjustable from 2...10 V to TZ 29. The zero passage of the S curve must change by ± > 250 kHz. |   |
| 4. | **Monitoring of IF frequency response** | Attenuation acc. to test circuit 3. TP 102 to earth via 2.2 nF. | | Set frequency marker 38 MHz to 2 $V_{ss}$ – 0 dB with bias voltage at TZ 30. Marker 38.9 MHz should lie between – 5 dB and – 7 dB, marker 34.5 MHz between – 3 dB and – 5 dB. |   |
| | | Test circuit 2. Sweep gen. via interstage transf. (4:1) to TP 203/204 (approx. 150 mV) | Oscillo. to T 231. Amplitude: 0,5 V/cm | | |
| 5.0 | **DF-AF stage** | Test circuit 4. Signal generator to TP 210 approx. 5.5 MHz (approx. 10 mV) | Oscillo. to T 321. Amplitude 0.5 V/cm. | Tune L 226 to AF max. and min. distortion factor. | |
| 6.0 | **Monitoring of video signal** | With the aid of a standard modulated TV transmitter, the video output voltage should be 2 $V_{ss}$ ± 0.2 V. | | | |

# Picture and sound IF-adjustment

**Required measuring equipment:**

| | |
|---|---|
| Sweep generator with marker transmitter: | 30...42 MHz, max. output 200 mV |
| Signal generator: | 5.5 MHz, dispersion ± 15 kHz, $f_{mod}$ = 1 kHz |
| Oscillograph: | Sensitivity 10 mV/cm...1 V/cm |
| RF rectifier probe | |
| Bias voltage instrument: | adjustable from 0...5 V |

**Preparations:**

Bias voltage instrument to TZ 30. Check U V 12 V ± 10% at TZ 23. The cores must be at the upper end of the coil.

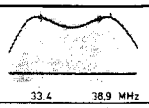
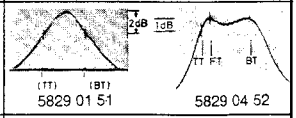
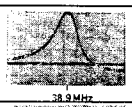
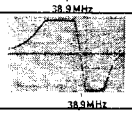
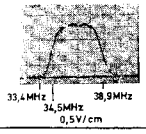
| No. | Stage to be adjusted | Connect. sweep gen., transm. | Connect. oscillor. | Adjustment procedure | Oscillograms Remarks |
|---|---|---|---|---|---|
| 1.1 | **UHF/IF filter** | Test circuit 1. Sweep gen. via 15 pF to TP 2 (UHF tuner) approx. 300 mV TP 203/204 to earth | Oscillo. via probe to TP 101/102. Amplitude: 10 mV/cm. See Fig. 1 | Adjust to max. amplitude and level roof with L 62 and L 64. (VC and SC must have the same height). Bandwidth can be narrowed with L 63. |   |
| 1.2 | **UHF/VHF/IF-filter** | Test circuit 1. Sweep gen. via 10 nF to TP 6 (UHF tuner) approx. 20 mV TP 4 to earth. | Oscillo. via probe to TP 203/204. Amplitude: approx. 20 mV/cm. See Fig. 2 | **Module 5829 01 51** Switch on UHF band. Set VC and SC to same height with L 161. **Module 5829 04 42/5829 04 52** Adjust to max: amplitude and level roof with L 161 and L 162 (BT and FT must have the same height). |   5829 01 51 5829 04 52 |
| 2. | **Reference circuit** | Test circuit 2. Sweep gen. via interstage transformer (4:1) to TP 201/202 (approx. 20 mV) | Oscillo. to TZ 24. Amplitude 450 mV/cm. | Tune frequency marker 39.5 MHz to max. amplitude with L 206. | TZ 29 free   |
| 3. | **AFC (Not in module 5829 01 51 5829 04 42 5829 04 52)** | Test circuit 2. Sweep gen. via interstage transformer (4:1) to TP 201/202 approx. 50 mV. | Oscillo. to TP 205. Amplitude: 2 V/cm. Signalling vol. to TZ 24 ≧ 1.5 V | Tune marker 39.5 MHz to zero with L 205. **AFC fine tuning:** Apply a voltage adjustable from 2... 10 V to TZ 29. The zero passage of the S curve must change by ± > 250 kHz. |   |
| 4. | **Monitoring of IF frequency response** | Attenuation acc. to test circuit 3. TP 102 to earth via 2.2 nF. | | Set frequency marker 38.1 MHz to 2 $V_{ss}$ – 0 dB with bias voltage at TZ 30. Marker 39.5 MHz should lie between – 5 dB and – 7 dB, marker 35.1 MHz between – 3 dB and – 5 dB. |   |
| | | Test circuit 2. Sweep gen. via interstage transf. (4:1) to TP 203/204 (approx. 150 mV) | Oscillo. to T 231. Amplitude: 0,5 V/cm | | |
| 5.0 | **DF-AF stage** | Test circuit 4. Signal generator to TP 210 approx. 6 MHz (approx. 10 mV) | Oscillo. to T 321. Amplitude 0.5 V/cm. | Tune L 226 to AF max. and min. distortion factor. | |
| 6.0 | **Monitoring of video signal** | With the aid of a standard modulated TV transmitter, the video output voltage should be 2 $V_{ss}$ ± 0.2 V. | | | |

Abb. 1

**Probe for RF tuning**

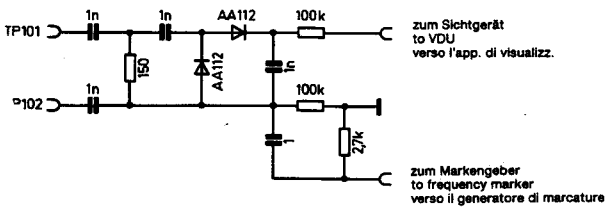
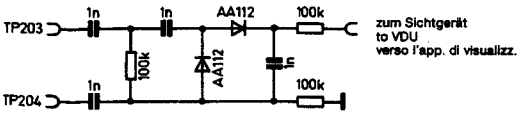
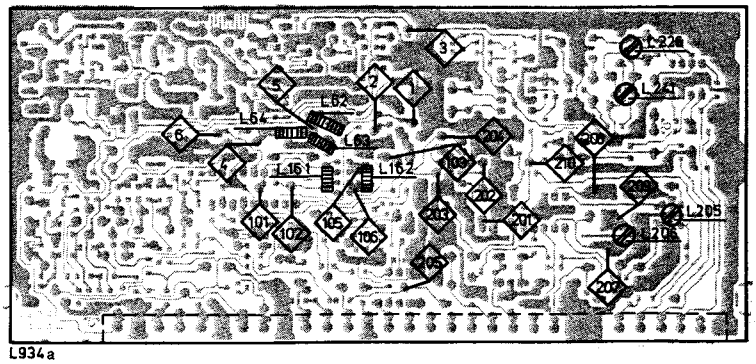



Abb. 2

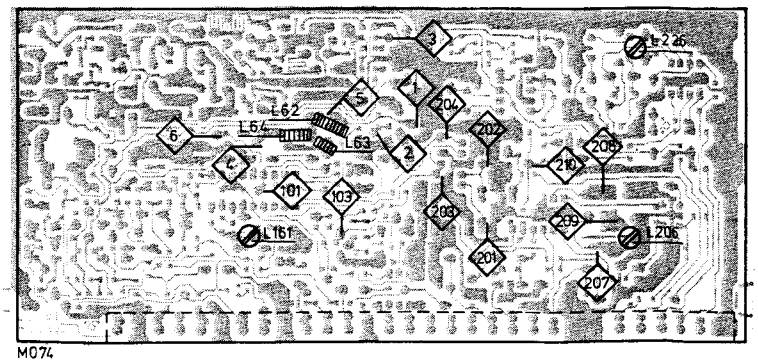
**Probe for tuning of the IF coil**




L934a

**Location of adjuster on RF-IF-AF module** 5829 04 42
5829 04 52




M074

**Location of adjuster on RF-IF-AF module** 5829 01 51

# Abgleich / Alignment

## HF-ZF-NF Modul (H) / RF-IF-AF module

5829 04 02 5,5 MHz/6,5 MHz (VS)
5829 04 12 5,5 MHz/6,5 MHz (TCU)

## Bild- und Ton-ZF-Abgleich

**Erforderliche Meßgeräte:**

| | |
|---|---|
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| Meßsender: | 5,5 MHz, Hub ± 15 kHz, $f_{mod}$ = 1 kHz |
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| HF-Gleichrichter-Tastkopf | |
| Vorspannungsgerät: | einstellbar von 0...5 V |

**Vorbereitungen:**

Vorspannungsgerät an TZ 30. U V 12 V ± 10% an TZ 23 kontrollieren. Die Kerne müssen am oberen Spulenende stehen.

| Lfd. Nr. | Abzugleichende Stufe | Anschluß Sender, Wobbler | Anschluß Oszillograph | Abgleichvorgang | Oszillogramme Bemerkungen |
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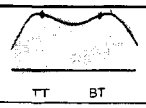
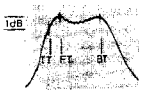
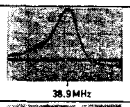
| 1.1 | **UHF/ZF-Filter** | Meßschaltung 1. Wobbler über 15 pF an TP 2 (UHF-Tuner) ca. 300 mV. TP 203/204 auf Masse legen. | Oszillograph über Tastkopf an TP 101/TP 102. Amplitude: 10 mV/cm. siehe Abb. 1 | Mit L 62 und L 64 auf max. Amplitude und gerades Dach abgleichen (BT und TT muß gleiche Höhe haben). Mit L 63 kann die Bandbreite schmaler eingestellt werden. |   |
| 1.2 | **UHF/VHF/ZF-Filter** | Meßschaltung 1. Wobbler über 10 nF an TP 6 (UHF-Tuner) ca. 20 mV. TP 4 auf Masse legen. | Oszillograph über Tastkopf an TP 203/204. Amplitude: ca. 20 mV/cm. siehe Abb. 2 | Mit L 161 und L 162 auf max. Amplitude und gerades Dach abgleichen (BT und FT muß gleiche Höhe haben). |   |
| 2. | **Referenzkreis** | Meßschaltung 2. Wobbler über Anpaßübertr. (4:1) an TP 201/202 (ca. 20 mV) | Oszillograph an TZ 24. Amplitude: 450 mV/cm. | Die Frequenzmarke 38,9 MHz mit L 206 auf max. Amplitude abgleichen. | TZ 29 frei   |
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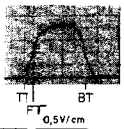
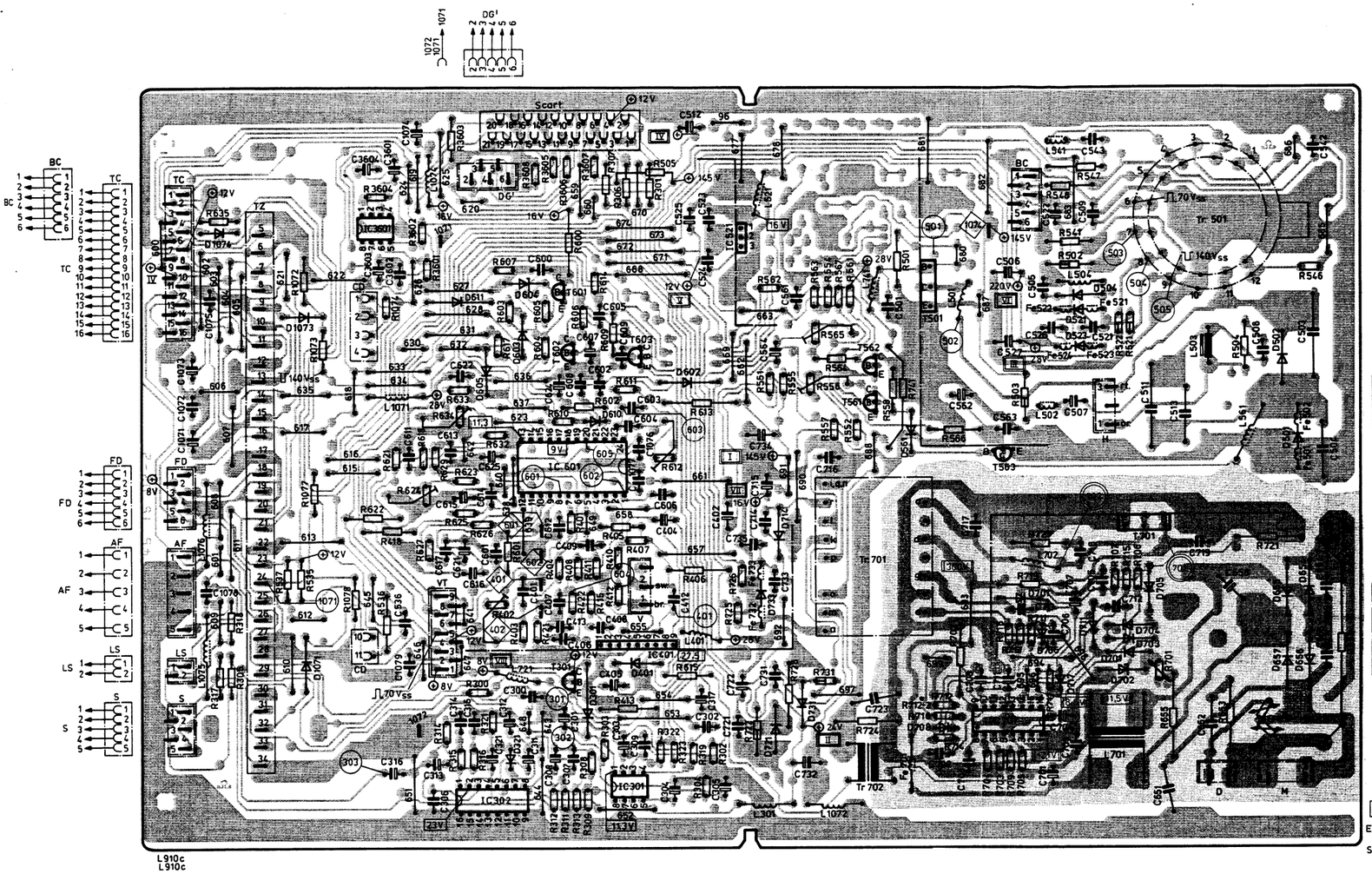
| 4. | **Kontrolle des ZF-Frequenz-ganges** | Dämpfung nach Meßschaltung 3. TP 102 über 2,2 nF an Masse legen. | | Die Frequenzmarke 37,1 MHz auf 2 $V_{ss}$ ≙ 0 dB mit Vorsp. an TZ 30 einst. Die Marke 38 MHz (BT) soll zwischen – 5 dB und – 7 dB, die Marke 33,6 MHz zwischen – 3 dB und – 5 dB liegen. |   |
| | | Meßschaltung 2. Wobbler über Anpaßübertr. (4:1) an TP 203/204 (ca. 150 mV) | Oszillograph an TZ 24. Amplitude: 0,5 V/cm | | |
| 5. | **DF-NF-Stufe Modul 5829 03 02 Modul 5829 04 02 Modul 5829 03 12 Modul 5829 04 12** | Meßschaltung 4. 1. Meßsender an TP 210 5,5 MHz (ca. 10 mV). 2. Meßsender an TP 210. 6,5 MHz (ca. 10 mV). | Oszillograph an TZ 31. Amplitude 0,5 V/cm. | 1. L 240 auf NF-Maximum und min. Klirrfaktor abgleichen. 2. L 241 auf NF-Maximum und min. Klirrfaktor abgleichen. | |
| 6. | **Kontrolle des Video-Signal** | Mittels normgerecht modulierten Fernsehsender muß die Video-Ausgangssp. 2 $V_{ss}$ ± 0,2 V betragen. | | | |

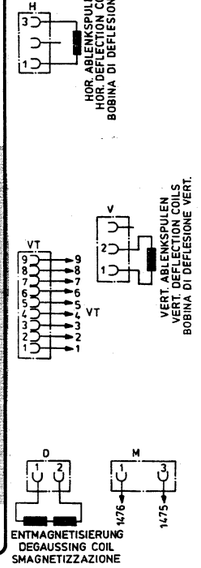
## Ersatzteile / Replacement parts list / Elenco delle parti di ricambio

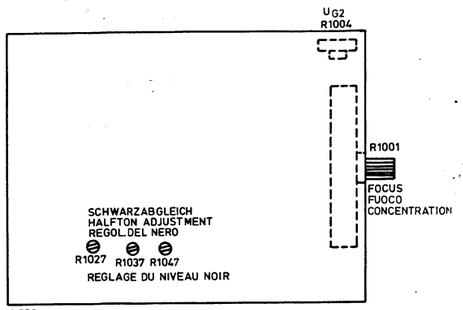
⚠ Sicherheitsbauteil im Sinn der Sicherheitsbestimmung. Diese Teile dürfen nur durch Originalteile ersetzt werden.
⚠ Safety components in accordance with existing regulations. These components must only be replaced by original component parts.
⚠ Componenti di sicurezza ai sensi del regolamento di sicurezza. Queste componenti devono venir sostituite unicamente con parti originali.

| Gegenstand / Item / Ricambi | | | Bestell-Nr. / Order no. / No. di rif. |
|---|---|---|---|
| **HF-ZF-NF Modul / RF-IF-AF module / Modulo MF-BF-AF** | | | **5829 04 03 / 5829 03 02 / 5829 04 02 / 5829 03 12 / 5829 04 12** |
| IC 161 | TDA 5030 | | 3761 17 65 |
| IC 171 | U 664 B | MOS | 3775 05 73 |
| IC 201 | TDA 4437 | | 3761 16 24 |
| IC 202, 261 | U 829 B | | 3761 13 50 |
| T 1 | BF 989 | MOS | 3611 07 11 |
| T 41 | BF 569 | | 3612 07 11 |
| T 61 | BF 569 | | 3612 07 13 |
| T 101 | BF 981/ON 779 | MOS | 3611 11 11 |
| T 161 | BF 840 | | 3611 07 50 |
| T 163 | BC 848 AF | | 3614 53 21 |
| T 182 | BC 857 AF | | 3614 54 11 |
| T 261 | BC 238 B | | 3614 01 22 |
| T 262 | BC 308 B | | 3614 29 52 |
| D 1, 21, 22, 41 | 2 BB 521 | | 3651 05 55 |
| D 101, 121, 122, 141 | 2 BB 529 | | 3651 05 35 |
| D 105, 125 | BB 621 | | 3651 06 12 |
| D 112, 114, 132, 134, 152 | BA 682 | | 3656 04 11 |
| D 115, 116, 181 | BAS 32 | | 3656 03 19 |
| D 260 | BA 282 | | 3656 17 35 |
| R 225 | 56 Ω 0,33 W | | 3154 09 94 |
| L 202 | Drossel / Choke / Bobina | | 4557 16 29 |
| L 205 | Filter / Filtre 38,9 MHz | | 4555 30 08 |
| L 206 | Filter / Filtre 38,9 MHz | | 4555 30 09 |
| L 207 | Drossel / Choke / Bobina | | 4557 16 49 |
| L 210 | Drossel / Choke / Bobina | | 4557 16 25 |
| L 211 | Spule / Coil / Bobina | | 4544 07 46 |
| L 226 | Filter / Filtre 5,5 MHz | | 4555 30 10 |
| L 260 | Spule / Coil / Bobina | | 4555 30 16 |
| L 261 | Spule / Coil / Bobina | | 4555 30 15 |
| F 201 | OFW 368 | | 4555 85 20 |
| F 202 | Filter / Filtre 6 MHz | | 4555 84 15 |
| F 202 | Filter / Filtre 5,5 MHz | | 4555 84 14 |
| F 221 | Filter / Filtre 6 MHz | | 4555 84 28 |
| F 221 | Filter / Filtre 5,5 MHz | | 4555 84 27 |
| F 222, 240 | Filter / Filtre 6,5 MHz | | 4555 84 27 |
| Anschlußleiste, 34 polig<br>Connecting pin, 34 fold<br>Spinottiera, 34 poli | | | 4145 16 75 |

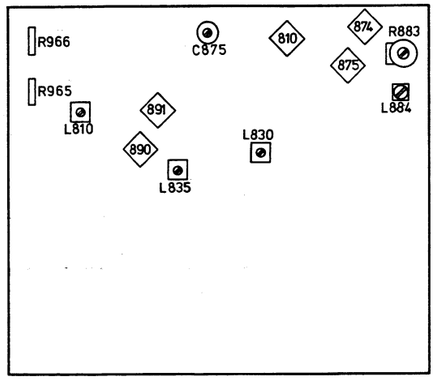



**Chassisplatte**
**Chassis board**
**Platine chassis**
**Piastra chassis**

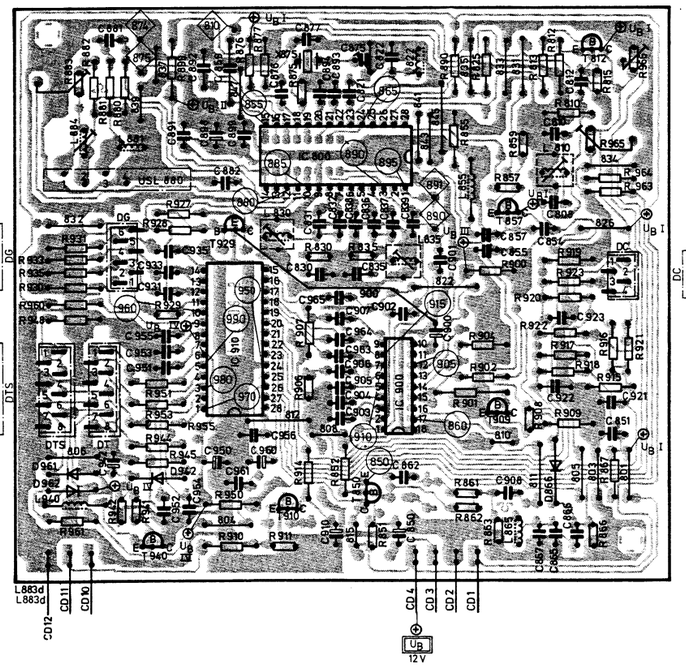


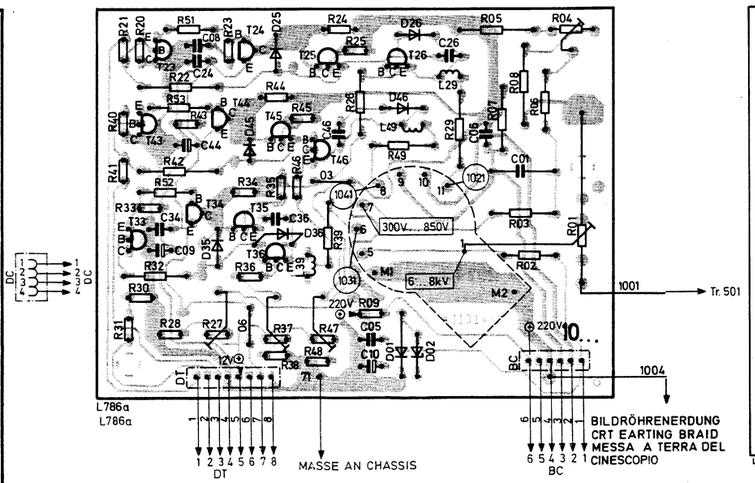



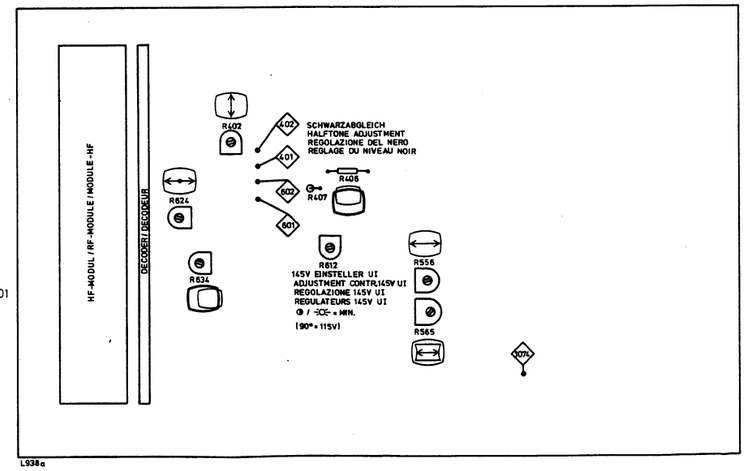

**Einsteller auf der Bildröhrenplatte,** Lötseite
**Location of adjuster controls on C.R.T. base board,** solder side
**Regulateur sur la plaque con. tube-cathodique,** côté soudures
**Regolatore schema di ubicazione su piastra cinescopio,** lato brasato




**Einsteller auf der Decoderplatte,** Bestückungsseite
**Location of adjuster on decoder board,** component side
**Regulateur et points d'essai sur la plaque decodeur,** côté composants
**Regolatore schema di ubicazione su piastra decoder,** lato equipaggiamento




**PAL-SECAM Decoderplatte**
**PAL-SECAM decoder board**
**Plaque decodeur PAL-SECAM**
**Piastra decoder PAL-SECAM**

**Bildröhrenanschlußplatte**
**C.R.T. base board**
**Platine de connexion tube image**
**Piastra collegamento cinescopio**

**Einsteller und Testpunkte auf der Chassisplatte,** Bestückungsseite
**Location of adjuster controls and test points on chassis board,** component side
**Regulateur et points d'essai sur la plaque de base,** côté composants
**Regolatore schema di ubicazione su piastra chassis,** lato equipaggiamento

| |
|---|
| **Einstellung**<br>**Adjustment**<br>**Réglage**<br>**Taratura** |
| **U1 Betriebs**<br>**Operatir**<br>**Tension**<br>**Tensione**<br>**d'eserci** |
| **Hor. Frequ.** |
| **Hor. Ampl.** |
| **Hor. Bildlage**<br>**plct shift**<br>**Pos. hor. de l'i**<br>**Pos. orizz. imn** |
| **O-W Kissen***<br>**E-W cushion**<br>**Coussin E-O**<br>**Cuscinetto EO** |
| **Vert. Ampl.**<br>**Vert. Lin.*** |
| **Vert. Bildlage**<br>**Plct. shift**<br>**Pos. vert. de l'**<br>**Pos. vert. imm** |
| **Focus** |
| **UG2**<br>**Schirmgitterspa**<br>**Screen grid vo**<br>**Tension de gril**<br>**Tensione griglia** |
| **Weißabgleich**<br>**Monochrome**<br>**Réglage des b**<br>**Regolazione d** |
| **Schwarzabgle**<br>**Black level ad**<br>**Réglage nivea**<br>**Regolazione d** |
| **FHT-Oszillator**<br>**Sub-carrier os**<br>**Oscillateur FH**<br>**Oscillatore FH** |
| **PAL-Dematrix**<br>**PAL dematrix**<br>**Dématrice PAL**<br>**Dematrice PAL** |
| **Glockenfilter**<br>**Bell-jar filter**<br>**Filtre de cloch**<br>**Filtro a campa**<br>**(Decoder 691** |
| **SECAM-Discri**<br>**(Decoder 691** |
| **SECAM-Discri**<br>**(Decoder 691** |

* Nicht im Comp
Not in Compa
Par sur tous C
Non in tutti B-

R1001
FOCUS
FUOCO
CONCENTRATION

side
ures
ato brasato

R883
L884

composants
equipaggiamento

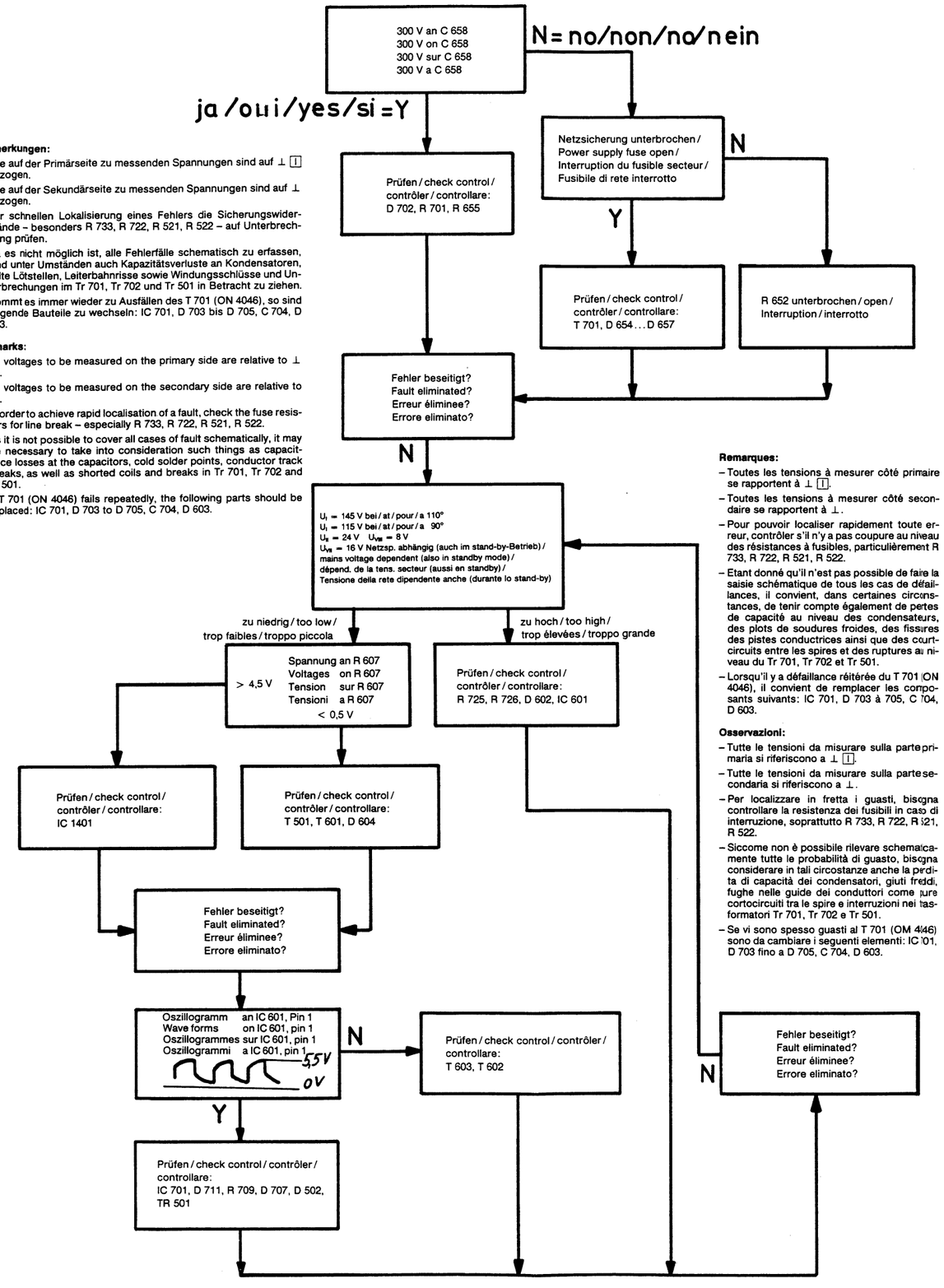
# Einstellungen am Chassis Compact B-90° (110°)
# Alignment on Chassis Compact B-90° (110°)
# Réglages sur le châssis compact B-90° (110°)
# Regolazioni sullo «chassis» Compact B-90° (110°)

| Einstellung<br>Adjustment<br>Réglage<br>Taratura | Pos. | einstellen auf . . .<br>adjust to . . .<br>Régler afin . . .<br>regolare su . . . | Hinweise, Vorbereitungen ect.<br>Notes<br>Remaruques<br>Avvisi |
|---|---|---|---|
| U1 **Betriebsspannung**<br>**Operating voltage**<br>**Tension de service**<br>**Tensione d'esercizio** | R 612 | 145 V ± 0,5 V an C 734 (110°-Chassis) 115 V ± 0,5 V an C 734 (90°-Chassis)<br>145 V ± 0,5 V on C 734 (110° chassis) 115 V ± 0,5 V on C 734 (90° chassis)<br>145 V ± 0,5 V sur C 734 (110° châssis) 115 V ± 0,5 V sur C 734 (90° châssis)<br>145 V ± 0,5 V su C 734 (110° «châssis») 115 V ± 0,5 V su C 734 (90° «châssis») | = min |
| **Hor. Frequ.** | R 624 | stehenden hor. Austastbalken<br>stationary hor. blanking bar<br>barres hor. de suppression fixes<br>barre di canc. orizz. stabili | 601 602 = Kurzschl.<br>Connect.<br>Court-circ.<br>Corto circ. |
| **Hor. Ampl.** | R 556 | 106% FuBK-Testbild<br>106% Test picture<br>106% mire<br>106% immagine di test | |
| **Hor. Bildlage**<br>**pict shift**<br>**Pos. hor. de l'image**<br>**Pos. orizz. immagine** | R 634 | - | |
| **O-W Kissen***<br>**E-W cushion**<br>**Coussin E-O**<br>**Cuscinetto EO** | R 565 | | Nur bei S4-Bildröhren<br>Only in S4 picture tube<br>Dans du tube cathodique S4<br>Solo negli cinescopio S4 |
| **Vert. Ampl.**<br>**Vert. Lin.*** | R 402<br>Br. 649*<br>Kneifen<br>removed<br>décon.<br>separare | runden Kreis<br>round circle<br>cercle soit rond<br>cerchio sia rontondo | = eingestellt sein<br>must be properly adjusted<br>doit déjà être réglée<br>deve essere regolata |
| **Vert. Bildlage**<br>**Pict. shift**<br>**Pos. vert. de l'image**<br>**Pos. vert. immagine** | R 406<br>R 407 | - | = trennen<br>removed<br>déconnecter<br>separare |
| **Focus** | R 1001 | optimale Schärfe<br>max. sharpness<br>netteté optimale<br>immagine ottimale | = Testbild<br>Test picture<br>mire<br>immagine di test |
| $U_{G2}$<br>Schirmgitterspannung<br>Screen grid voltage<br>Tension de grille-écran<br>Tensione griglia schermo | R 1004 | gerade sichtbaren Strich<br>to where a line becomes just visible<br>jusqu'un trait apparaisse sur l'écran<br>in modo che sullo schermo si possa vedere una linea | Steckerleiste von **DT** auf **DTS** stecken.<br>Connector **DT** to plug connector **DTS.**<br>Connexion **DT** et enficher le dans la prise **DTS.**<br>Connettore a innesto **DT** al con. a innesto **DTS.**<br>401 402 403 = Kurzschl. / Connect. / Court-circ. / Corto circ. |
| **Weißabgleich**<br>**Monochrome adjustm.**<br>**Réglage des blancs**<br>**Regolazione del bianco** | R 965<br>R 966 | helle Flächen = weiß einst.<br>bright areas on screen to white<br>surfaces claires sur blanc<br>le parti chiare in modo che siano bianche | $U_{G2}$ muß eingestellt sein<br>Properly perf. $U_{G2}$ adjustment<br>$U_{G2}$ doit être réglé<br>$U_{G2}$ deve essere regolato |
| **Schwarzabgleich**<br>**Black level adjustm.**<br>**Réglage niveau noir**<br>**Regolazione del nero** | R 1027<br>R 1037<br>R 1047 | Einsteller auf Mittenstellung — dunkle Flächen = farblos einst.<br>Black level controls to mid-pos. — dark areas on screen to colourness<br>Mettre les pot au centre-pos. — surface foncées sur transparant<br>Portare il pot. in pos. media — le parti scure in modo che siano serria | |
| **PAL SECAM Decoder 6911 30 30** $U_B$ = 12 V kontr./cont.<br>**PAL Decoder 6911 30 26** | | | |
| **FHT-Oszillator**<br>**Sub-carrier oscillator**<br>**Oscillateur FHT**<br>**Oscillatore FHT** | C 875 | annähernd stehende Farbinformation<br>near stationary colours<br>sur l'information de couleur presque stable<br>su inf. di colore approssimata | Farbtestbild / colour bar signal<br>Segnale barre colore<br>874 875 = Kurzschl.<br>Connect.<br>Court-circ.<br>Corto circ. |
| **PAL-Dematrix**<br>**PAL dematrix**<br>**Dématrice PAL**<br>**Dematrice PAL** | L 884 | verschwindende Jalousie im Feld „G–Y = 0"<br>minimum Hanover bars in "G–Y = 0"<br>sur jalousie disparaissante dans le champ «G–Y = 0»<br>in modo da ottenere una sparizione delle striscie nel campo «G–Y = 0» | FuBK-Testbild<br>Test picture<br>mire<br>immagine di test |
| | R 883 | verschwindende Jalousie im Feld + V ± U<br>minimum Hanover bars in + V ± U<br>sur jalousie disparaissante dans le champ + V ± U<br>in modo da ottenere una sparizione delle striscie nel campo + V ± U | |
| **Glockenfilter**<br>**Bell-jar filter**<br>**Filtre de cloche**<br>**Filtro a campana**<br>**(Decoder 6911 30 30)** | L 810 | Daß die Amplitude beider Zeilen bei schwarz/weiß und während des Frequenz-Nulldurchganges gleich sind.<br>That the amplitude of both lines is the same with black/white and during zero frequency passage.<br>De sorte que les amplitudes des deux lignes soient identiques, en noir et blanc et durant le passage par zéro de la fréquence.<br>Che l'amplitudine di ambedue le righe nel caso di bianco e nero e durante il passaggio della frequenza per lo zero sia uguale. | Oscil. → 810<br>Zwei Zeilen übereinanderschreiben.<br>Adjust to converge two consecutive lines.<br>Ecrire 2 lignes l'une sur l'autre.<br>Scrivere 2 righe una sovrapposta all'altra. |
| **SECAM-Discrim. (R–Y)**<br>**(Decoder 6911 30 30)** | L 830 | Schwarz- u. Weißpegel = deckungsgleich zu Austastpegel<br>to where the black level and the white level coincide on the blanking level<br>à l'egalisation du niveau noir et niveau blanc qu'il sort situé au niveau de suppression<br>in modo che il livello del nero e quello del bianco siano congruenti sul livello di cancellazione | Oscil. → 891 |
| **SECAM-Discrim. (B–Y)**<br>**(Decoder 6911 30 30)** | L 835 | | Oscil. → 890 |

SECAM-Farbb.
Colour bar sign.
mire de couleur
bane di colore

* Nicht im Compact B-90°
Not in Compact B-90°
Par sur tous Compact B-90°
Non in tutti B-90°

# Reparaturhilfe zum Schaltnetzteil / Service aids to switched-mode power supply / Aide de dépannage pour le circuit d'alimentation à découpage / Aiuti per il servizio per alimentazione-commutazione


300 V an C 658
300 V on C 658
300 V sur C 658
300 V a C 658
N= no/non/no/nein
ja /oui/yes/si =Y
Prüfen / check control / contrôler / controllare: D 702, R 701, R 655
Netzsicherung unterbrochen / Power supply fuse open / Interruption du fusible secteur / Fusibile di rete interrotto
N
Y
Prüfen / check control / contrôler / controllare: T 701, D 654 . . . D 657
R 652 unterbrochen / open / Interruption / interrotto
Fehler beseitigt? Fault eliminated? Erreur éliminee? Errore eliminato?
N
$U_i$ = 145 V bei / at / pour / a 110°
$U_i$ = 115 V bei / at / pour / a 90°
$U_B$ = 24 V $U_{G2}$ = 8 V
$U_B$ = 16 V Netzsp. abhängig (auch im stand-by-Betrieb) / mains voltage dependent (also in standby mode) / dépend. de la tens. secteur (aussi en standby) / Tensione della rete dipendente anche (durante lo stand-by)
zu niedrig / too low / trop faibles / troppo piccola
zu hoch / too high / trop élevées / troppo grande
Spannung an R 607 Voltages on R 607 Tension sur R 607 Tensioni a R 607
> 4,5 V
< 0,5 V
Prüfen / check control / contrôler / controllare: R 725, R 726, D 602, IC 601
Prüfen / check control / contrôler / controllare: IC 1401
Prüfen / check control / contrôler / controllare: T 501, T 601, D 604
Fehler beseitigt? Fault eliminated? Erreur éliminee? Errore eliminato?
Oszillogramm an IC 601, Pin 1
Wave forms on IC 601, pin 1
Oszillogrammes sur IC 601, pin 1
Oszillogrammi a IC 601, pin 1
55V
0V
N
Prüfen / check control / contrôler / controllare: T 603, T 602
Y
Prüfen / check control / contrôler / controllare: IC 701, D 711, R 709, D 707, D 502, TR 501
N
Fehler beseitigt? Fault eliminated? Erreur éliminee? Errore eliminato?

**Anmerkungen:**

- Alle auf der Primärseite zu messenden Spannungen sind auf ⊥ [1] bezogen.
- Alle auf der Sekundärseite zu messenden Spannungen sind auf ⊥ bezogen.
- Zur schnellen Lokalisierung eines Fehlers die Sicherungswiderstände – besonders R 733, R 722, R 521, R 522 – auf Unterbrechnung prüfen.
- Da es nicht möglich ist, alle Fehlerfälle schematisch zu erfassen, sind unter Umständen auch Kapazitätsverluste an Kondensatoren, kalte Lötstellen, Leiterbahnrisse sowie Windungsschlüsse und Unterbrechungen im Tr 701, Tr 702 und Tr 501 in Betracht zu ziehen.
- Kommt es immer wieder zu Ausfällen des T 701 (ON 4046), so sind folgende Bauteile zu wechseln: IC 701, D 703 bis D 705, C 704, D 603.

**Remarks:**

- All voltages to be measured on the primary side are relative to ⊥ [1].
- All voltages to be measured on the secondary side are relative to ⊥.
- In order to achieve rapid localisation of a fault, check the fuse resistors for line break – especially R 733, R 722, R 521, R 522.
- As it is not possible to cover all cases of fault schematically, it may be necessary to take into consideration such things as capacitance losses at the capacitors, cold solder points, conductor track breaks, as well as shorted coils and breaks in Tr 701, Tr 702 and Tr 501.
- If T 701 (ON 4046) fails repeatedly, the following parts should be replaced: IC 701, D 703 to D 705, C 704, D 603.

**Remarques:**

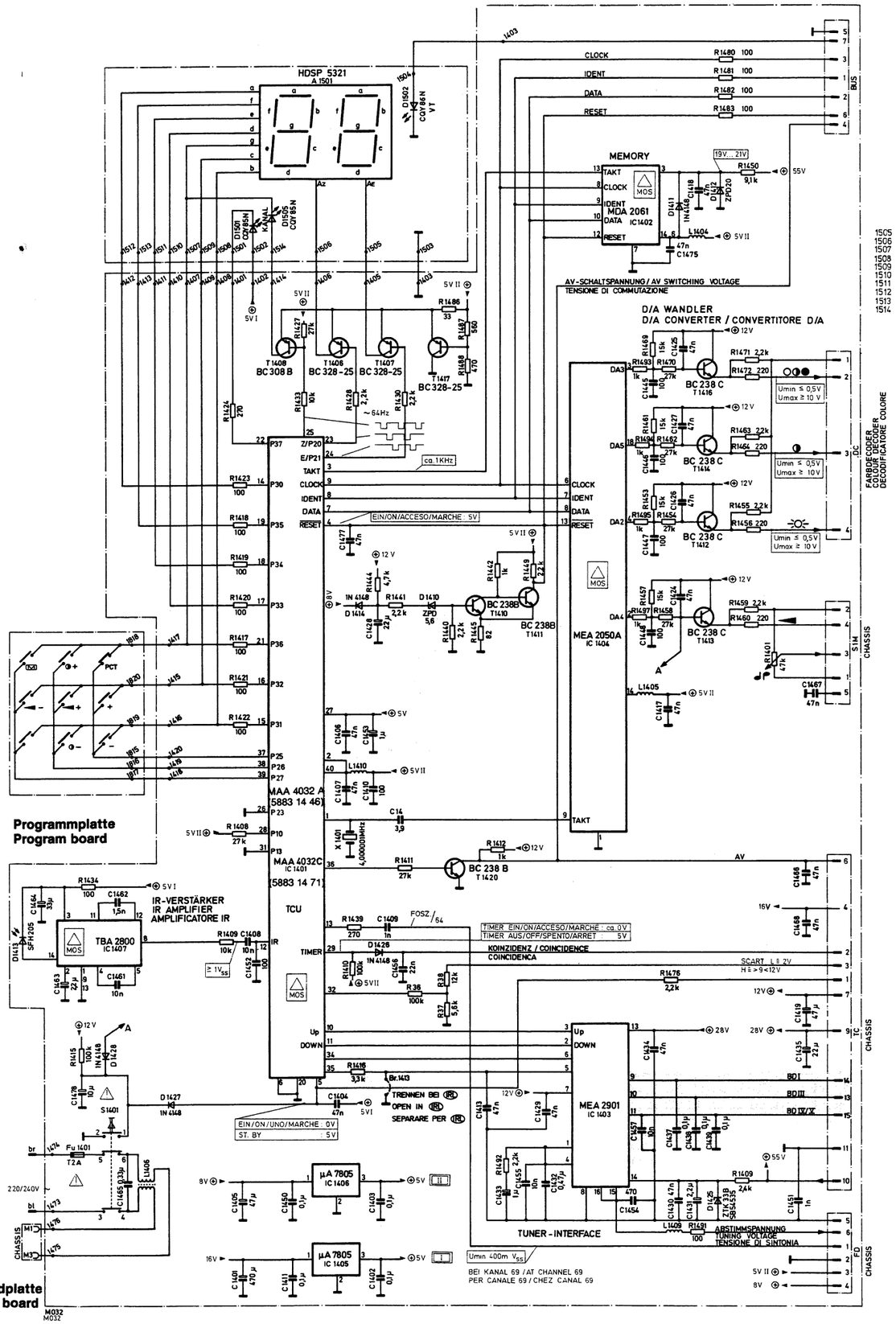
- Toutes les tensions à mesurer côté primaire se rapportent à ⊥ [1].
- Toutes les tensions à mesurer côté secondaire se rapportent à ⊥.
- Pour pouvoir localiser rapidement toute erreur, contrôler s'il n'y a pas coupure au niveau des résistances à fusibles, particulièrement R 733, R 722, R 521, R 522.
- Etant donné qu'il n'est pas possible de faire la saisie schématique de tous les cas de défaillances, il convient, dans certaines circonstances, de tenir compte également de pertes de capacité au niveau des condensateurs, des plots de soudures froides, des fissures des pistes conductrices ainsi que des court-circuits entre les spires et des ruptures au niveau du Tr 701, Tr 702 et Tr 501.
- Lorsqu'il y a défaillance réitérée du T 701 (ON 4046), il convient de remplacer les composants suivants: IC 701, D 703 à 705, C 704, D 603.

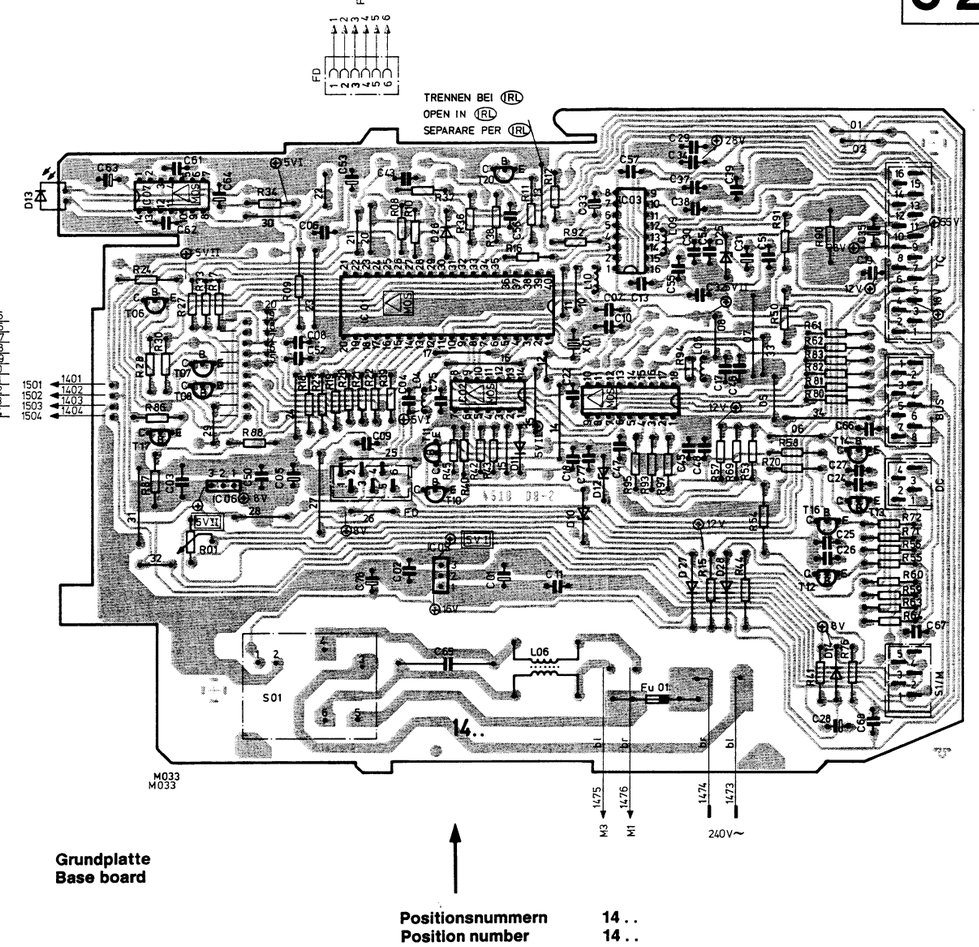
**Osservazioni:**

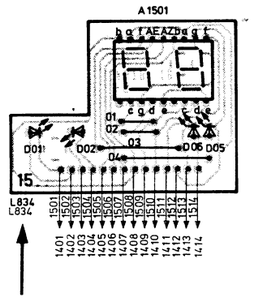
- Tutte le tensioni da misurare sulla parte primaria si riferiscono a ⊥ [1].
- Tutte le tensioni da misurare sulla parte secondaria si riferiscono a ⊥.
- Per localizzare in fretta i guasti, bisogna controllare la resistenza dei fusibili in caso di interruzione, soprattutto R 733, R 722, R 521, R 522.
- Siccome non è possibile rilevare schematicamente tutte le probabilità di guasto, bisogna considerare in tali circostanze anche la perdita di capacità dei condensatori, giuti freddi, fughe nelle guide dei conduttori come pure cortocircuiti tra le spire e interruzioni nei trasformatori Tr 701, Tr 702 e Tr 501.
- Se vi sono spesso guasti al T 701 (ON 4046) sono da cambiare i seguenti elementi: IC 701, D 703 fino a D 705, C 704, D 603.

**Not in 5883 14 46**

# IR-Empfänger, IFB 491 5883 14 46 (UK)
# IR receiver, IFB 491 5883 14 71 (UK/IRL)




## Ersatzteil

⚠ Sicherh
⚠ Safety
⚠ Compo
⚠ Compo

**Gegenstand**
**Item**
**Pièce**
**Ricambi**

**IR Empfär**
**IR receive**
**Récepteu**
**Ricevitore**

Aufbauplatte
Plaque de mo

Kontaktplatte
Platine de co

Netzschalter
Commutateur

Netzsicherun
Fusible secte

Netzsicherun
Cade pour fus

Netzkabel / N
Cordon d'alim
für / for / pou

Netzkabel / N
Cordon d'alim
für / for / pou

Vorverstärker
Boîtier du pré

Kopfhörerbuc
Prise pour ca

Kabel, Chassi
Cordon, chas
Cavo, chassis

**Grundplat**
**Platine de**

IC 1401
IC 1401
IC 1402
IC 1403
IC 1404
IC 1405, 1406
IC 1407
T 1408
T 1410, 1411,
T 1406, 1407,
T 1412... 141
D 1411, 1414
D 1410
D 1412
D 1413
D 1425
D 1426... 142

R 1401

X 1401

L 1405, 1409,

L 1406

L 3550, 3551

IC-Fassung, 4
Monture de C

IC-Fassung, 1
Monture de C

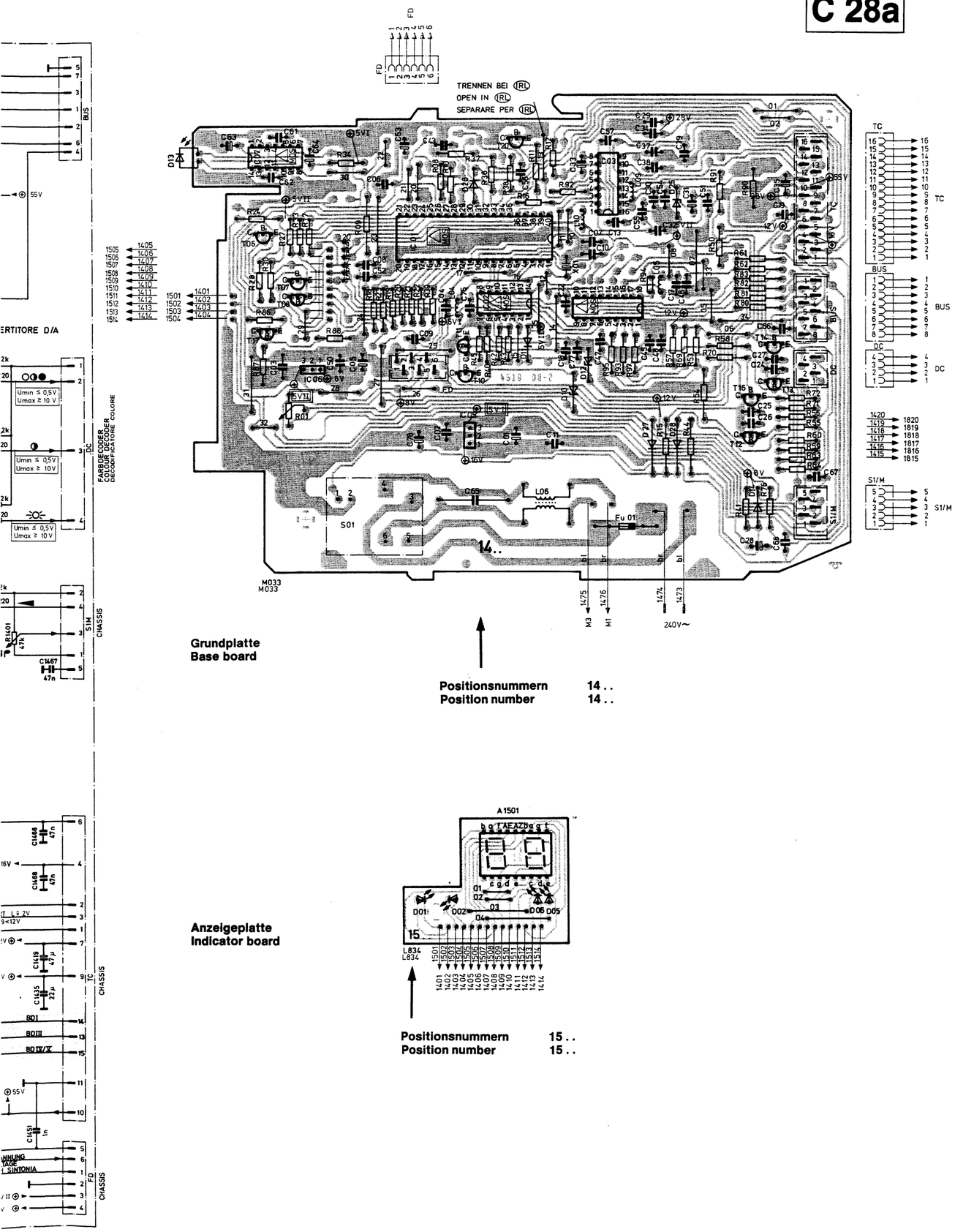
IC-Fassung, 1
Monture de C

IC-Fassung, 1
Monture de C

**Kop**
**Hea**
**Pris**
**Pres**

4144 1

# C 28a




**Grundplatte**
**Base board**

**Positionsnummern** **14 . .**
**Position number** **14 . .**




**Anzeigeplatte**
**Indicator board**

**Positionsnummern** **15 . .**
**Position number** **15 . .**

## Ersatzteile / Replacement parts list / Pièces de rechange / Elenco delle parti di ricambio

⚠ Sicherheitsbauteil im Sinn der Sicherheitsbestimmung. Diese Teile dürfen nur durch Originalteile ersetzt werden.
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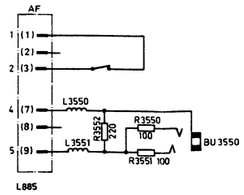
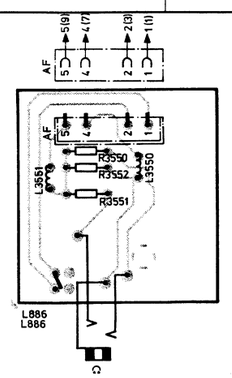
⚠ Composant de sécurité conformément aux réglementations de sécurité. Ces composants doivent être uniquement remplacés par des pièces d'origines.
⚠ Componenti di sicurezza ai sensi del regolamento di sicurezza. Queste componenti devono venir sostituite unicamente con parti originali.

| Gegenstand<br>Item<br>Pièce<br>Ricambi | Bestell-Nr.<br>Order no.<br>N° de com.<br>No. di rif. | Gegenstand<br>Item<br>Pièce<br>Ricambi | Bestell-Nr.<br>Order no.<br>N° de com.<br>No. di rif. |
|---|---|---|---|
| **IR Empfänger, IFB 491 (D/F)**<br>**IR receiver, IFB 491 (H)**<br>**Récepteur à IR, TCI 491 (UK)**<br>**Ricevitore comando IR, IFB 491 (UK/IRL)** | **5883 14 45**<br>**5883 14 70**<br>**5883 14 46**<br>**5883 14 71** | **Anzeigeplatte für 5883 14 45/5883 14 70**<br>**Indicator board for 5883 14 45/5883 14 70**<br>**Platine indication pour 5883 14 45/5883 14 70**<br>**Piastra indicatori per 5883 14 45/5883 14 70** | **6911 32 58** |
| Aufbauplatte / Mounting board<br>Plaque de montage / Piastra di montaggio (IFB 491 D) | 8625 12 68 | **Anzeigeplatte für 5883 14 46**<br>**Indicator board for 5883 14 46**<br>**Platine indication pour 5883 14 46**<br>**Piastra indicatori per 5883 14 46** | **6911 32 70** |
| Kontaktplatte, 9 polig / Contact board, 9-fold<br>Platine de contact pour 9 broches / Piastra di cont., 9 poli | 4188 02 79 | | |
| Netzschalter / Mains switch<br>Commutateur principal / Interruttore principale | ⚠ 4112 21 71 | D 1501 CQV 10-3-4<br>D 1502 CQY 86 N<br>D 1505 CQY 85 N<br>D 1506 CQY 87 N | 3681 14 51<br>3681 14 13<br>3681 14 11<br>3681 14 17 |
| Netzsicherung / Mains fuse<br>Fusible secteur / Fusibile principale T 2 A | ⚠ 4375 16 18 | | |
| Netzsicherungsabdeckung / Mains fuse lid<br>Cade pour fusible secteur / Coperchio per fusibile principale | 8612 15 08 | A 1501/1502 HDSP 5321 | 3686 10 18 |
| | | Halter für D 1501 / Holder for D 1501<br>Support pour D 1501 / Supporto della D 1501 | 8624 71 06 |
| Netzkabel / Mains cable<br>Cordon d'alimentation / Cavo di distribuzione<br>für / for / pour / per 5883 14 46/5883 14 71 | ⚠ 4888 89 39 | | |
| | | Halter für D 1505 / Holder for D 1505<br>Support pour D 1505 / Supporto della D 1505 | 8624 71 27 |
| Netzkabel / Mains cable<br>Cordon d'alimentation / Cavo di distribuzione<br>für / for / pour / per 5883 14 45/5883 14 70 | ⚠ 4131 24 36 | Fenster für A 1501 / Window for A 1501<br>Fenêtre pour A 1501 / Finestra per A 1501 | 8622 01 76 |
| Vorverstärkergehäuse / Amplifier cabinet<br>Boîtier du préamplificateur / Contenitore del preamplificatore | 6536 21 14 | | |
| Kopfhörerbuchse / Tape/headphone socket<br>Prise pour casque et magnétophone / Piastra di collegamento | 4144 11 86 | **Kontaktplatte / Contact board**<br>**Platine de contact / Piastra di cont.** | **6911 32 59** |
| Kabel, Chassis-Bedienteil / Cable, Chassis-operating unit<br>Cordon, chassis-unité de commandes<br>Cavo, chassis-Elemento di comando | 4888 57 79 | | |
| | | **IR-Sender, VFS 4**<br>**IR transmitter, VFS 4**<br>**Émetteur, VFS 4**<br>**Trasmettitore a raggi IR, VFS 4** | **5652 09 73** |
| **Grundplatte / Base board**<br>**Platine de base / Piastra di base** | | | |
| IC 1401 MAA 4032 MOS<br>IC 1401 MAA 4032 B MOS<br>IC 1402 MDA 2061 MOS<br>IC 1403 MEA 2901 MOS<br>IC 1404 MEA 2050 A MOS<br>IC 1405, 1406 TDD 1605 S<br>IC 1407 TBA 2800 MOS<br>T 1408 BC 308 B<br>T 1410, 1411, 1418, 1420, 1421 BC 238 B<br>T 1406, 1407, 1417 BC 328-25<br>T 1412 . . . 1416, 1422 BC 238 C<br>D 1411, 1414 1 N 4148<br>D 1410 ZPD 5,6<br>D 1412 ZPD 20/18,8–20,4V<br>D 1413 SFH 205<br>D 1425 ZTK 33 B-SB<br>D 1426 . . . 1428 1 N 4148 | 3779 11 51<br>3779 11 57<br>3776 51 43<br>3779 11 65<br>3779 11 61<br>3768 17 65<br>3763 08 13<br>3614 29 52<br>3614 01 22<br>3614 71 33<br>3614 01 23<br>3656 08 10<br>3653 17 52<br>3653 17 67<br>3683 10 33<br>3768 10 35<br>3656 08 10 | **IR-Sender, VFS 4 F**<br>**IR transmitter, VFS 4 F**<br>**Émetteur, VFS 4 F**<br>**Trasmettitore a raggi IR, VFS 4 F** | **5652 09 74** |
| | | **IR-Sender, VFS 4 C**<br>**IR transmitter, VFS 4 C**<br>**Émetteur, VFS 4 C**<br>**Trasmettitore a raggi IR, VFS 4 C** | **5652 09 77** |
| | | Zierblech / Blind / Tôle d'enjolivement / Fregio (VFS 4, VFS 4 C) | 6411 56 45 |
| | | Zierblech / Blind / Tôle d'enjolivement / Fregio (VFS 4 F) | 6411 56 44 |
| | | Kontaktplatte, 36 polig / Contact board, 36-fold<br>Platine de contact / Piastra di contatto, 36 poli | 4188 02 56 |
| | | Gehäuseoberteil / Casing, top section<br>Boîtier partie supérieur / Parte superiore del telaio | 6138 45 03 |
| | | Gehäuseunterteil / Casing, bottom section<br>Boîtier partie base / Parte interiore del telaio | 6138 46 04 |
| | | Batteriedeckel / Battery cover<br>Couvercle de batterie / Coperchio della batteria | 6138 46 08 |
| | | Tastensatz, schwarz / Operating knob, black<br>Jeu de touches, noir / Pulsante di comande, nero | 6315 35 04 |
| | | Tastensatz, rot / Operating knob, red<br>Jeu de touches, rouge / Pulsante di comando, rosso | 6315 35 02 |
| | | Tastensatz, gelb / Operating knob, yellow<br>Jeu de touches, jeune / Pulsante di comando, giallo | 6315 35 03 |
| R 1401 47 kΩ Klang / Tone / Son, aigue / Tono | 3118 15 58 | IC 1201 SAA 1250-1 MOS<br>T 1201, 1202 BC 368<br>T 1203 BC 338-40<br>D 1201, 1202 LD 271 LED<br>D 1203 ZTE 2<br>D 1204 SD 103 C | 3779 25 03<br>3614 42 50<br>3614 41 40<br>3682 01 04<br>3653 15 10<br>3656 02 02 |
| X 1401 Quarz / Quartz<br>Quartz / Quarzo 4 MHz | 4421 31 84 | | |
| L 1405, 1409, 1410 Drossel / Choke<br>Bobine de self / Bobina | 4557 16 32 | | |
| L 1406 Drossel / Choke<br>Bobine de self / Bobina | 4557 04 33 | | |
| L 3550, 3551 Drossel / Choke<br>Bobine de self / Bobina | 4557 80 64 | | |
| IC-Fassung, 40 polig / IC socket, 40-fold<br>Monture de CI pour 40 broches / Zoccolo del IC, 40 poli | 4156 27 96 | | |
| IC-Fassung, 14 polig / IC socket, 14-fold<br>Monture de CI pour 14 broches / Zoccolo del IC, 14 poli | 4156 27 89 | | |
| IC-Fassung, 16 polig / IC socket, 16-fold<br>Monture de CI pour 16 broches / Zoccolo del IC, 16 poli | 4156 27 90 | | |
| IC-Fassung, 18 polig / IC socket, 18-fold<br>Monture de CI pour 18 broches / Zoccolo del IC, 18 poli | 4156 27 91 | | |

**Kopfhörerbuchse**
**Headphones socket**
**Prise pour écouteur**
**Presa per cuffia**

4144 11 86

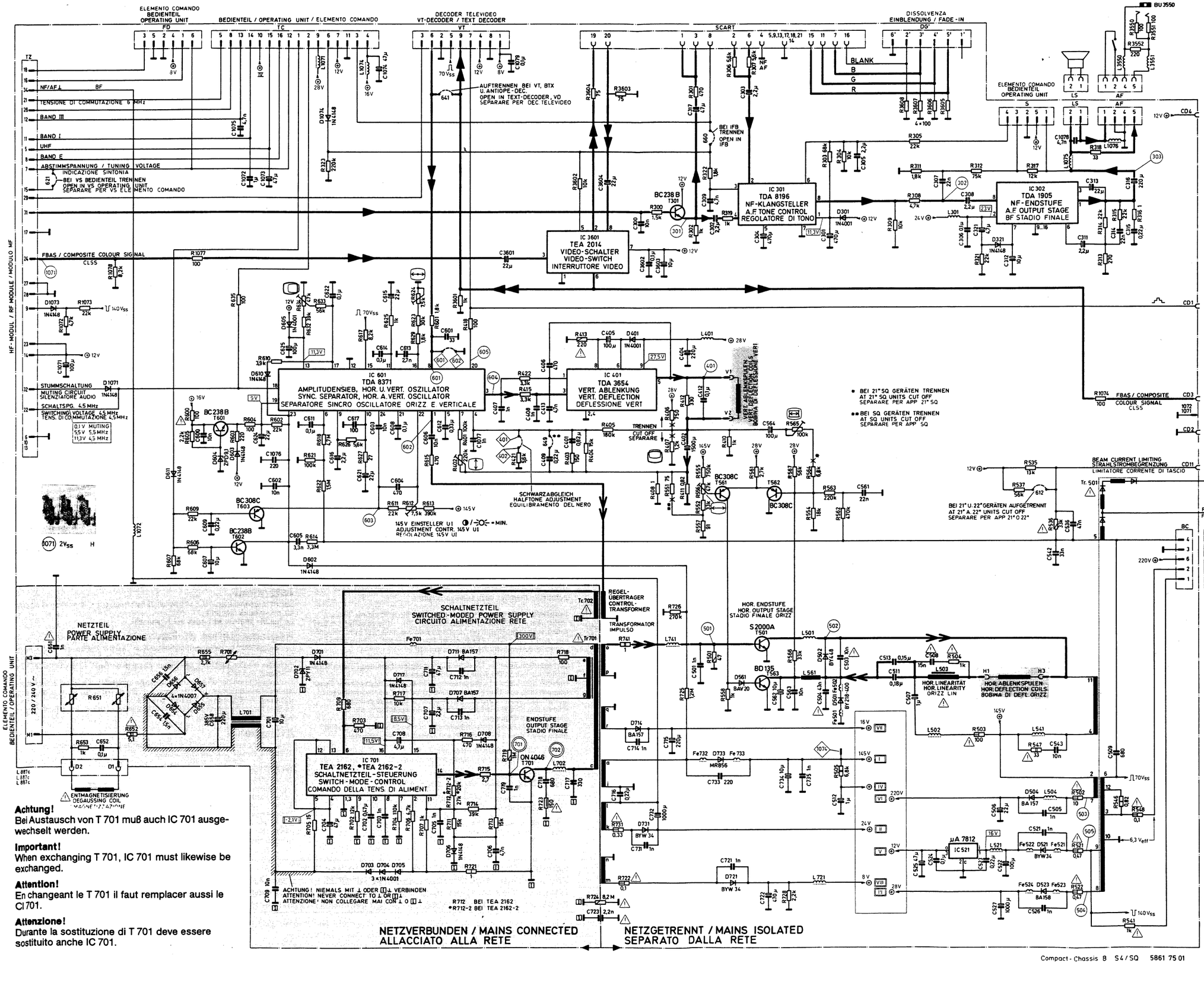


# Chassis Compact B-110°-S4/SQ

5861 75 01

**A 16a**

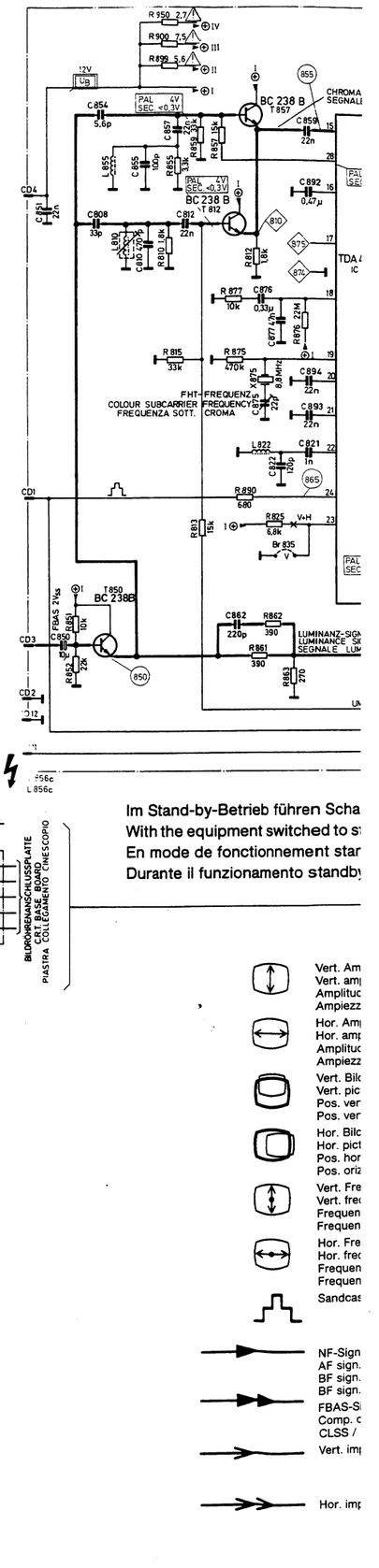



**Achtung!**
Bei Austausch von T 701 muß auch IC 701 ausgewechselt werden.

**Important!**
When exchanging T 701, IC 701 must likewise be exchanged.

**Attention!**
En changeant le T 701 il faut remplacer aussi le CI 701.

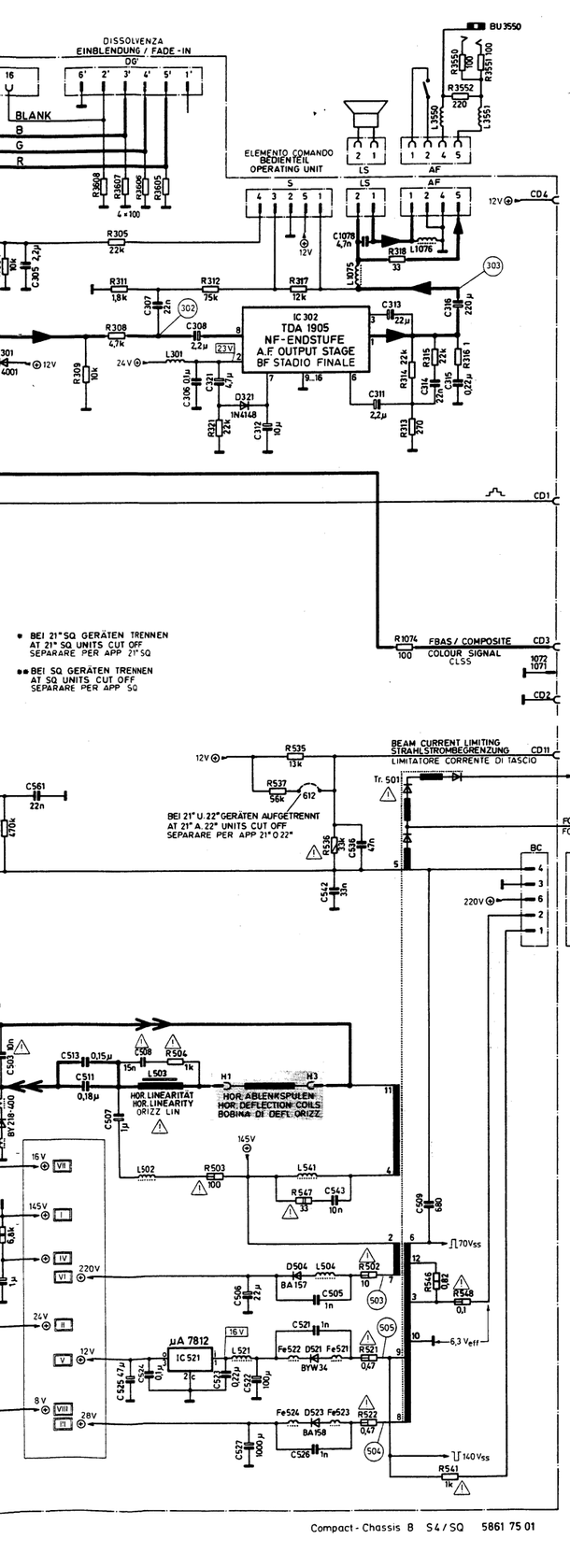
**Attenzione!**
Durante la sostituzione di T 701 deve essere sostituito anche IC 701.

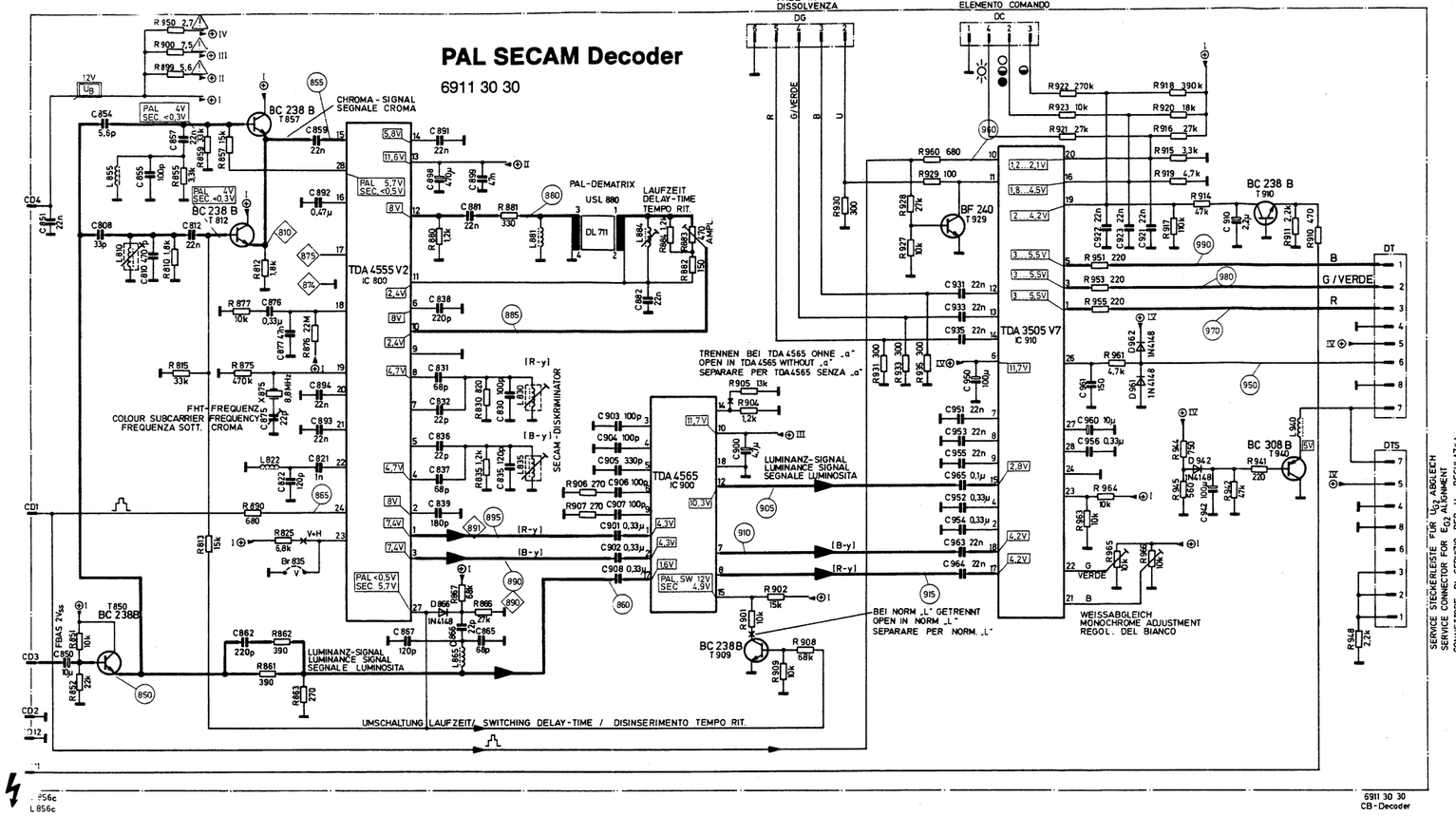


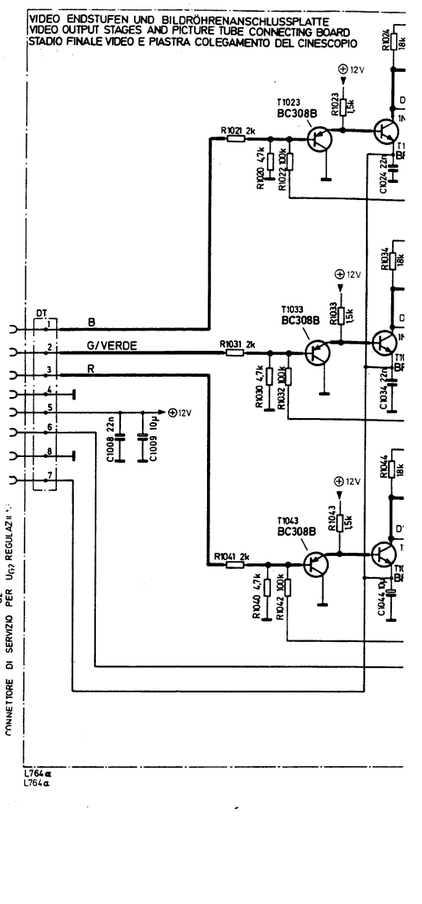
# A 16a

## PAL SECAM Decoder

6911 30 30





VIDEO ENDSTUFEN UND BILDRÖHRENANSCHLUSSPLATTE
VIDEO OUTPUT STAGES AND PICTURE TUBE CONNECTING BOARD
STADIO FINALE VIDEO E PIASTRA COLEGAMENTO DEL CINESCOPIO
BC 308B
SERVICE STECKERLEISTE FÜR U52 ABGLEICH
SERVICE CONNECTOR FOR E02 ALIGNMENT
CONNETTORE DI SERVIZIO PER U52 REGOLAZIONE
L764a
L764a

Im Stand-by-Betrieb führen Schaltnetzteil und Hor. Endstufe verringerte Spannungswerte.
With the equipment switched to stand-by, the voltages of the switched-mode power supply and the horizontal output stage are below nominal value.
En mode de fonctionnement stand by les blocs secteur de commutation et l'étage finale hor. dèlivrent des valeurs de tension diminuées.
Durante il funzionamento standby, il blocco di comando della rete e lo stadio finale orizzontale eliminano valori della tensione ridotti.

Vert. Amplitude
Vert. amplitude
Amplitude vert.
Ampiezza verticale

Hor. Amplitude
Hor. amplitude
Amplitude hor.
Ampiezza orizzontale

Vert. Bildlage
Vert. picture shift
Pos. vert. de l'image
Pos. verticale immagine

Hor. Bildlage
Hor. picture shift
Pos. hor. de l'image
Pos. orizzontale immagine

Vert. Frequenz
Vert. frequency
Frequence vert.
Frequenza verticale

Hor. Frequenz
Hor. frequency
Frequence hor.
Frequenza orizzontale

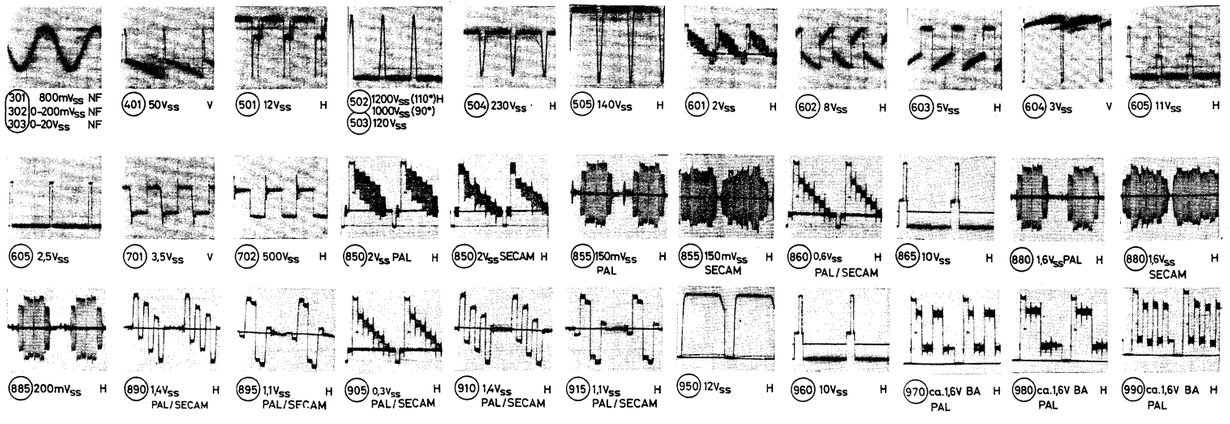
Sandcastle

NF-Sign.
AF sign.
BF sign.
BF sign.

FBAS-Sign.
Comp. colour sign.
CLSS / CLSS

Vert. imp.

Hor. imp.




Alle Decoderoszillogramme sind unter folgenden Bedingungen aufgenommen: Normfarbbalken PAL bzw. PAL-SECAM, maximaler Kontrast. ca. Nennhelligkeit und nominale Sättigung.

The decoder waveforms are taken under following conditions: Standard PAL that is, SECAM colour par pattern, contrast at maximum and brightness and colour saturation at nominale value.

Tous les oscillogrammes mesurés sur le décodeur sont pris sous les conditions suivantes: Norme de mire de barre PAL, respectivement PAL-SECAM, contrast au maximum, luminosité et intensité couleur aux valeurs nominales.

Tutti gli oscillogr
zioni: generatore
trasto, approssir

**Belastbarke**
**Power rating**
**Wattage de**
**Carico amm**

1/
1/
1/
1
2
3

# A 16a

## Bildröhrenanschlußplatte
## C.R.T. base board
## Platine-connexion tube-cathodique
## Piastra di allac. del cinescopio

6911 39 50




**Achtung!**
Bei Austausch oder Reparatur des Farbdecoders ist vor dem Einschalten des Gerätes unbedingt darauf zu achten, daß die zusätzliche Masseverbindung der Bildröhrenanschlußplatte hergestellt ist.

**Important:**
Following exchange or repair of the colour decoder, ensure that the additional earth connection c.r.t. board has been re-established before switching on the set.

**Attention!**
Avant le démarrage de l'appareil, en cas de remplacement ou réparation d'un décodeur, il faut contrôler que la masse supplémentaire de la platine du tube cathodique soie bien présente.

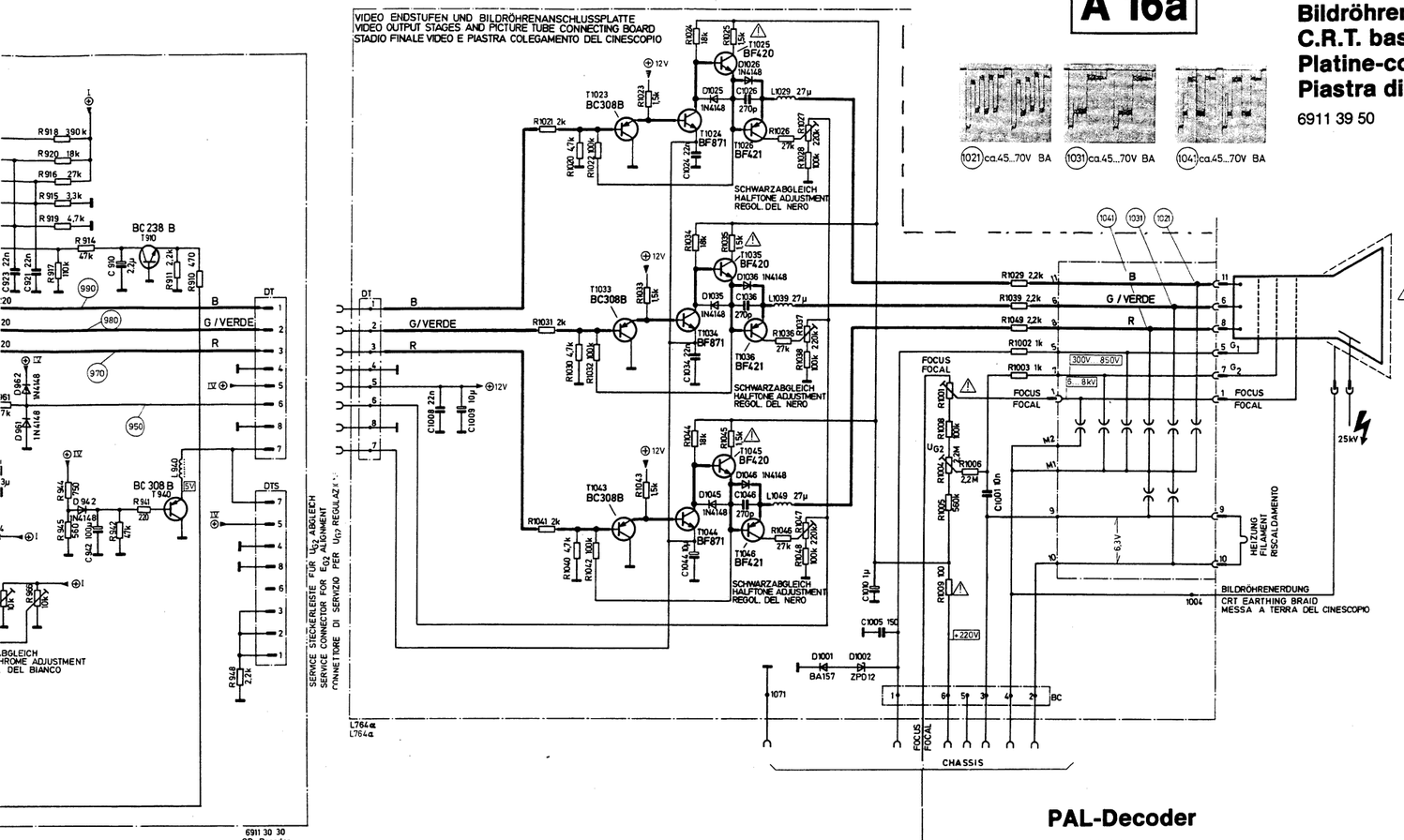
**Attenzione!**
In caso di sostituzione o riparazione del decodificatore di colore bisogna assolutamente fare attenzione, prima di accendere l'apparecchio, che sia garantito il collegamento a massa chassis – circuito stampato di collegamento di cinescopio.

**Hinweis zum Antennenanschluß**
Aufgrund der heute vermehrt auf das unmittelbare Geräteumfeld einwirkenden Störstrahlungen, sollten mit Rücksicht auf eine optimale Störunterdrückung ausschließlich abgeschirmte Antennenzuleitungen (75 Ohm) und Antennenstecker (DIN 45325) verwendet werden. Ungeschirmte Antennenkabel, Symmetrierglieder und Antennenstecker reichen für einen ungestörten Empfang häufig nicht mehr aus.

**Hint for antenna connecting**
Because of the ever increasing number of interference sources and their negative effects on reception in general, only shielded (75 ohm) antenna cables and antenna plugs (DIN 45325) should be used in the interest of the best possible interference suppression. Unshielded antenna cables, balanced-to-unbalanced matching transformers and antenna plugs often prove insufficient for interference-free reception.

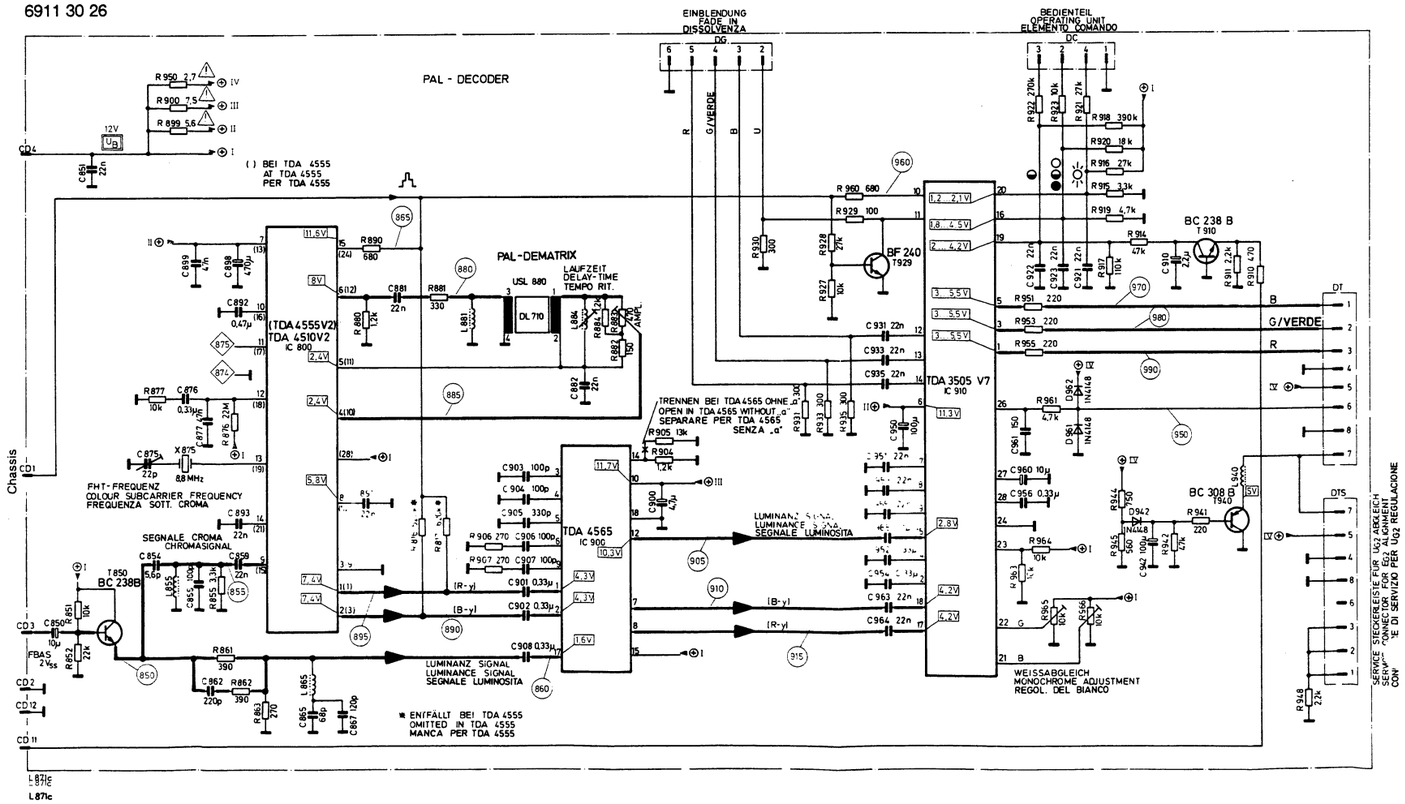
**Remarques relatives au raccordement de l'antenne**
En raison de l'influence de plus en plus directe des rayonnements parasites sur l'appareil, il convient d'utiliser exclusivement des câbles d'antenne (75 ohms) et des fiches d'antenne (DIN 45325) blindés afin d'assurer une suppression optimale des parasites. Des câbles d'antenne, des filtres de symétrisation et des fiches d'antenne non blindés ne suffisent plus, dans la plupart des cas, pour garantir une réception sans perturbations.

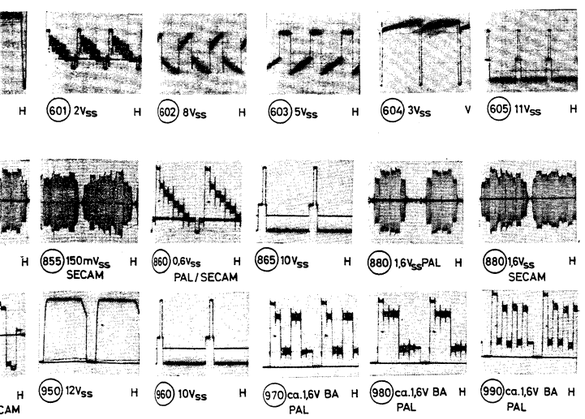
**Collegamento antenna**
Per via delle radiazioni di interferenza che agiscono oggi in modo accresciuto sul campo periferico diretto degli apparecchi, è necessario, in vista di una soppressione ottimale delle interferenza, che vengano utilizzati esclusivamente fili di alimentazione di antenna (75 ohm) e prese per antenna (DIN 45325) schermati. Oggigiorno, i cavi per antenna, le componenti di simmetria e le prese per antenna non schermati non sono più sufficienti per una ricezione esente da interferenza.



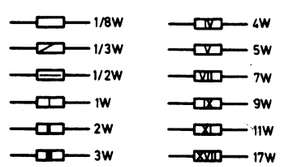

## PAL-Decoder

6911 30 26




**Belastbarkeit der Widerstände**
**Power rating of resistors**
**Wattage des résistances**
**Carico ammissibile per le resistenze**




en under following conditions:
ur par pattern, contrast at maxi-
aturation at nominale value.

Tous les oscillogrammes mesurés sur le décodeur sont pris sous les conditions suivantes: Norme de mire de barre PAL, respectivement PAL-SECAM, contrast au maximum, luminosité et intensité couleur aux valeurs nominales.

Tutti gli oscillogrammi decoder sono stati fatti nelle seguenti condizioni: generatore di barre PAL oppure PAL-SECAM, massimo contrasto, approssimativamente luminosità e saturazione normali.

# Ersatzteile / Replacement parts list / Pièces de rechange / Elenco delle parti di ricambio

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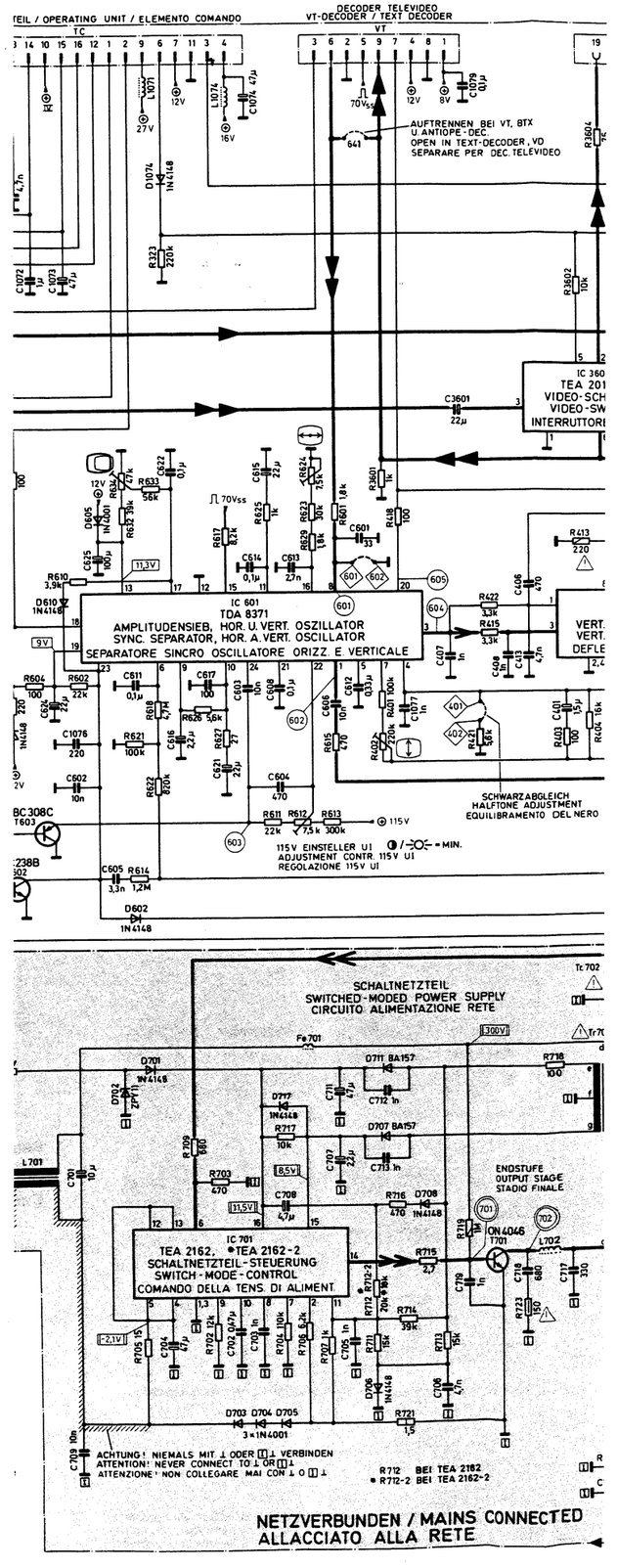
⚠ Composant de sécurité conformément aux réglementations de sécurité. Ces composants doivent être uniquement remplacés par des pièces d'origines.
⚠ Componenti di sicurezza ai sensi del regolamento di sicurezza. Queste componenti devono venir sostituite unicamente con parti originali.

| Gegenstand / Item / Pièce / Ricambi | | | | Bestell-Nr. / Order no. / N° de com. / No. di rif. |
|---|---|---|---|---|
| **Chassis Compact B-110°-S4/SQ** | | | | **5861 75 01** |
| **Chassis Compact B-90° NN** | | | | **5861 75 12** |
| IC 301 | | | TDA 8196 | 3763 08 63 |
| IC 302 | | | TDA 1905 | 3763 12 24 |
| IC 401 | | | TDA 3654 | 3763 14 19 |
| IC 521 | | | UA 7812 CKC | 3768 17 48 |
| IC 601 | | | TDA 8371 | 3768 21 53 |
| IC 701 | | | TEA 2162 | 3766 11 54 |
| IC 3601 | | | TEA 2014 MOS | 3766 11 50 |
| T 301, 601, 602 | | | BC 548 B | 3614 59 24 |
| T 501 | | | BU 508 A | 3616 13 73 |
| T 561, 562, 603 | | | BC 558 C | 3614 20 25 |
| T 563 | | | BD 135 | 3616 12 29 |
| T 701 | | | BU 508 A-ON 4046 | 3616 13 74 |
| T 1071 | | | BC 558 B | 3614 20 24 |
| D 301, 401, 605, 703...705 | | | 1 N 4001 | 3657 11 05 |
| D 321, 603, 706, 708 | | | 1 N 4148-SB | 3656 02 25 |
| D 501 | | | BY 218/400 | 3657 14 46 |
| D 502 | | | BY 448 | 3657 55 48 |
| D 504, 707, 711, 714, 731 | | | BA 157 | 3656 10 09 |
| D 521, 721, 731 | | | BYW 34 | 3657 53 11 |
| D 523 | | | BA 158 | 3656 10 10 |
| D 561, 602, 611, 707, 1071, 1073, 1074 | | | 1 N 4148 | 3656 08 10 |
| D 604 | | | ZPD 9,1 | 3653 17 41 |
| D 610, 717 | | | 1 N 4148 | 3656 02 25 |
| D 654...657 | | | 1 N 4007 | 3657 11 06 |
| D 702 | | | ZPD 11 | 3653 24 17 |
| D 721, 731 | | | BYW 34 | 3657 54 11 |
| D 733 | | | MR 856 | 3657 53 55 |
| R 316 | 1 Ω | 0,33 W | | 3154 89 71 |
| R 402 | 220 kΩ | | Einsteller / Adjuster Potentiomètre / Impostatore | 3111 09 17 |
| R 413 | 220 Ω | | | ⚠ 3154 90 57 |
| R 502 | 10 Ω | 0,25 W | | ⚠ 3151 26 03 |
| R 503 | 100 Ω | 0,35 W | | ⚠ 3151 08 12 |
| R 504, 541 | 1 kΩ | 0,25 W | | ⚠ 3151 26 08 |
| R 505 | 6,8 Ω | 1 W | | 3151 39 09 |
| R 521, 522 | 47 Ω | 0,25 W | | ⚠ 3151 45 09 |
| R 536 | 33 Ω | | | ⚠ 3154 90 82 |
| R 547 | 33 Ω | 1 W | | ⚠ 3141 39 13 |
| R 548 | 0,1 Ω | 0,25 W | | ⚠ 3151 26 11 |
| R 556 | 47 kΩ | | Einsteller / Adjuster Potentiomètre / Impostatore | 3111 09 18 |
| R 565 | 100 kΩ | | Einsteller / Adjuster Potentiomètre / Impostatore | 3111 17 99 |
| R 612 | 7,5 kΩ | | Einsteller / Adjuster Potentiomètre / Impostatore | 3111 09 38 |
| R 624 | 7,5 kΩ | | Einsteller / Adjuster Potentiomètre / Impostatore | 3111 09 38 |
| R 634 | 47 kΩ | | Einsteller / Adjuster Potentiomètre / Impostatore | 3111 09 18 |
| R 651 | | | PTC | 3172 12 13 |
| R 652 | 5,1Ω | 11 W | Draht / Wire wound / Filo / Fil | ⚠ 3132 28 90 |
| R 701 | | | PTC | 3172 11 67 |
| R 721 | 1Ω | 1 W | Draht / Wire wound / Filo / Fil | 3133 13 54 |
| R 722 | 0,1 Ω | 0,25 W | | ⚠ 3151 26 11 |
| R 723 | 150 MΩ | 0,7 W | | ⚠ 3151 26 25 |
| R 724 | 8,2 MΩ | 0,54 W | | ⚠ 3156 09 70 |
| R 731 | 0,33 Ω | 0,25 W | | ⚠ 3151 45 05 |
| R 741 | 0,1 Ω | 2 W | Draht / Wire wound / Fil / Filo | 3133 12 50 |
| C 503 | 10 nF | 1,6 kV | Chassis 5861 75 01 | ⚠ 3385 09 68 |
| C 503 | 6,8 nF | 1,6 kV | Chassis 5861 75 12 | ⚠ 3385 09 62 |
| C 508 | 15 nF | | Chassis 5861 75 01 | ⚠ 4314 63 12 |
| C 508 | 6,8 nF | 400 V | Chassis 5861 75 12 | ⚠ 4314 63 07 |
| C 518 | 0,47 µF | 250 V | | ⚠ 3324 09 95 |
| C 521 | 3,3 nF | 1,6 kV | | 3385 09 65 |
| C 651 | 1 nF | 400 kV | | ⚠ 3261 09 17 |
| C 654, 656 | 1,5 nF | 2 kV | | 3267 09 76 |
| C 717 | 330 pF | 1 kV | | 3267 08 53 |
| C 718 | 680 pF | 2 kV | | 3267 09 77 |
| C 723 | 2,2 nF | 400 V | | 3261 09 13 |
| C 733 | 220 pF | 1 kV | | 3267 08 52 |
| L 301 | | | Drossel / Choke Bobine de self / Bobina | 4557 15 56 |
| L 401, 501 | | | Drossel / Choke Bobine de self / Bobina | 4557 80 96 |
| L 502, 703 | | | Drossel / Choke Bobine de self / Bobina | 4557 09 16 |
| L 503 | | | Linearität / Linearity Linéarité / Linearità Chassis 5861 75 01 | ⚠ 4516 10 20 |
| L 503 | | | Linearität / Linearity Linéarité / Linearità Chassis 5861 75 12 | ⚠ 4516 10 68 |
| L 504 | | | Drossel / Choke Bobine de self / Bobina | 4557 15 56 |
| L 521, 721, 741 | | | Drossel / Choke Bobine de self / Bobina | 4557 80 60 |
| L 506, 541 | | | Drossel / Choke Bobine de self / Bobina | 4557 09 18 |
| L 561 | | | O-W Spule / Coil Bobine de self / Bobina | 4517 24 52 |
| L 701 | | | Drossel / Choke Bobine de self / Bobina | 4557 04 13 |
| L 702 | | | Drossel / Choke Bobine de self / Bobina | 4557 06 11 |
| L 1071 | | | Drossel / Choke Bobine de self / Bobina | 4557 17 15 |
| L 1072, 1074 | | | Drossel / Choke Bobine de self / Bobina | 4557 15 56 |
| L 1075, 1076 | | | Drossel / Choke Bobine de self / Bobina | 4557 80 65 |
| Tr 501 | | | Hor. Ausgangstransform. Hor. line transformer Trasformatore di uscita orizz. Transf. de lignes Chassis 5861 75 01 | ⚠ 4515 03 28 |
| Tr 501 | | | Hor. Ausgangstransform. Hor. line transformer Trasformatore di uscita orizz. Transf. de lignes Chassis 5861 75 12 | ⚠ 4515 03 30 |
| Tr 701 | | | Schaltnetzteiltransformator Switched moded transformer Transformateur de commutation Trasformatore di rete Chassis 5861 75 01 | ⚠ 4523 14 64 |
| Tr 701 | | | Schaltnetzteiltransformator Switched moded transformer Transformateur de commutation Trasformatore di rete Chassis 5861 75 12 | ⚠ 4523 14 51 |
| Tr 702 | | | Impuls-Transformator Pulse transformer Transformateur d'impulsions Trasformator d'impulso | ⚠ 4523 11 06 |
| X 875 | | | Quarz 4 MHz / Quartz 4 MHz Quartz 4 MHz / Quarzo 4 MHz | 4421 31 46 |
| Fu 1101 | | | Sicherung T 2 A / Fuse T 2 A Fusible T 2 A / Fusibile T 2 A | ⚠ 4375 16 18 |
| Fu 1101 | | | Sicherungshalter / Fuse holder Support pour fusible Molla di trazione per fusibile | 4157 04 51 |
| S 1101 | | | Netzschalter / Mains switch Commutat. princip. / Interrut. di rete | 4112 21 71 |
| Chassis-Schiene Chassis cross-member Rail de châssis Guida dello «chassis» | | | | 8365 06 05 |
| Chassis-Schiene, links Chassis cross-member, left Rail de châssis, gauche Guida dello «chassis», sinistro | | | | 8626 65 09 |
| Chassis-Schiene, rechts Chassis cross-member, right Rail de châssis, droite Guida dello «chassis», destra | | | | 8626 65 10 |
| Kühlblech für T 701, IC 401 Heat sink for T 701, IC 401 Tôle refroidissement pour T 701, IC 401 Aletta di raffreddamento per T 701, IC 401 | | | | 6524 70 11 |
| Kühlblech für IC 301 Heat sink for IC 301 Tôle refroidissement pour IC 301 Aletta di raffreddamento per IC 301 | | | | 6524 42 05 |
| Kühlblech für IC 521 Heat sink for IC 521 Tôle refroidissement pour IC 521 Aletta di raffreddamento per IC 521 | | | | 6524 35 25 |
| Feder für T 701, IC 401, IC 501 Holder for T 701, IC 401, IC 501 Ressort de tension pour T 701, IC 401, IC 501 Molla di trazione per T 701, IC 401, IC 501 | | | | 7368 70 10 |
| Feder für T 563 Holder for T 563 Ressort de tension pour T 563 Molla di trazione per T 563 | | | | 7368 70 07 |
| Anschlußleiste für HF-Modul Fermale plug for RF module Réglette à douilles du module-HF Spinottiera per il modulo alta frequ. | | | | 4135 03 78 |
| SCART Buchsenleiste SCART female plug Réglette à douilles du priseperitelevision Spinottiera SCART | | | | 4145 02 66 |

| Gegenstand / Item / Pièce / Ricambi | | | | Bestell-Nr. / Order no. / N° de com. / No. di rif. |
|---|---|---|---|---|
| **Bildröhrenanschlußplatte** | | | | **6911 39 50** |
| **C.R.T. base boars** | | | | |
| **Platine de connexion du tube-cathodique** | | | | |
| **Piastra di allacciamento del cinescopio** | | | | |
| T 1023, 1033, 1043 | | | BC 308 B | 3614 29 52 |
| T 1024, 1034/1044 | | | BF 859 | 3612 52 85 |
| T 1025, 1035, 1045 | | | BF 420 | 3612 52 25 |
| T 1026, 1036, 1046 | | | BF 421 | 3612 44 76 |
| D 1001 | | | BA 157 | 3656 10 09 |
| D 1002 | | | ZPD 12 | 3653 17 29 |
| D 1025, 1026, 1035, 1036, 1045, 1046 | | | 1 N 4148 | 3656 08 10 |
| R 1001 | | | Focus / Focalisation | ⚠ 3722 20 77 |
| R 1004 | 2,2 MΩ | | $U_{G2}$ | 3111 31 56 |
| R 1009 | 100 Ω | 0,25 W | | ⚠ 3151 45 16 |
| R 1025, 1035, 1045 | 1,5 kΩ | 0,25 W | | ⚠ 3151 45 23 |
| R 1027, 1037, 1047 | | 220 kΩ | Schwarzabgleich / Halftone adj. Alignement du noir Regolaz. del nero | 3111 50 71 |
| C 1001 | 10 nF | 1 kV | | 3315 44 20 |
| L 1029, 1039, 1049 | | | Drossel / Choke Bobine de self / Bobina | 4557 16 32 |
| Bildröhrenfassung / Picture tube socket Socle de tube-image / Zoccolo del cinescopio | | | | 4155 40 20 |
| **PAL SECAM Decoder (CB)** | | | | **6911 30 30** |
| IC 800 | | | TDA 4555 | 3765 13 87 |
| IC 900 | | | TDA 4565 V 2 | 3765 13 91 |
| IC 910 | | | TDA 3505 V 7 | 3765 13 58 |
| T 812, 850, 857, 909, 910 | | | BC 238 B | 3614 01 22 |
| T 929 | | | BF 240 | 3612 01 50 |
| T 940 | | | BC 308 B | 3614 29 52 |
| D 866, 942, 961, 962 | | | 1 N 4148 | 3656 08 10 |
| R 883 | | 330 Ω | Einsteller / Adjuster Impostatore / Ajusteur | 3111 17 11 |
| R 965, 966 | | 10 kΩ | Einsteller / Adjuster Impostatore / Ajusteur | 3111 36 60 |
| C 875 | | 1,8-2,2 pF | Trimmer | 3412 50 26 |
| L 810 | | | Filter / Filtre | 4555 30 14 |
| L 822 | | | Drossel / Choke Bobine de self / Bobina | 4557 16 31 |
| L 830, 835 | | | Drossel / Choke Bobine de self / Bobina | 4555 30 13 |
| L 855 | | | Drossel / Choke Bobine de self / Bobina | 4557 15 06 |
| L 865 | | | Drossel / Choke Bobine de self / Bobina | 4557 16 60 |
| L 881 | | | Drossel / Choke Bobine de self / Bobina | 4557 16 31 |
| L 884 | | | Spule / Coil Bobine / Bobina | 4555 24 58 |
| L 940 | | | Drossel / Choke Bobine de self / Bobina | 4557 15 15 |
| USL 880 | | | Verzögerungsleitung / Delay line Linea di ritardo / Ligne à retard | 4342 11 22 |
| Q 875 | | | Quarz / Quartz / Quartz / Quarzo | 4421 31 75 |
| **PAL-Decoder (CB)** | | | | **6911 30 26** |
| IC 800 | | | TDA 4510 | 3765 13 86 |
| IC 800 | | | TDA 4555 | 3765 13 87 |
| IC 900 | | | TDA 4565 V2 | 3765 13 91 |
| IC 910 | | | TDA 3505 V7 | 3765 13 58 |
| T 850, 910 | | | BC 238 B | 3614 01 22 |
| T 929 | | | BF 240 | 3612 01 50 |
| T 940 | | | BC 308 B | 3614 29 52 |
| D 942, 961, 962 | | | 1 N 4148 | 3656 08 10 |
| R 883 | | 330 Ω | Einsteller / Adjuster Impostatore / Ajusteur | 3111 17 11 |
| R 965, 966 | | 10 kΩ | Einsteller / Adjuster Impostatore / Ajusteur | 3111 36 60 |
| C 875 | | 1,8-2,2 pF | Trimmer | 3412 50 26 |
| L 855 | | | Drossel / Choke Bobine de self / Bobina | 4557 15 06 |
| L 865 | | | Drossel / Choke Bobine de self / Bobina | 4557 16 60 |
| L 881 | | | Drossel / Choke Bobine de self / Bobina | 4557 16 31 |
| L 884 | | | Spule / Coil / Bobina / Bobine | 4555 24 58 |
| L 940 | | | Drossel / Choke Bobine de self / Bobina | 4557 15 15 |
| USL 880 | | | Verzögerungsleitung / Delay line Linea di ritardo / Ligne à retard | 4342 11 16 |
| Q 875 | | | Quarz / Quartz / Quartz / Quarzo | 4421 31 75 |

## Chassis Compact B-90°-NN

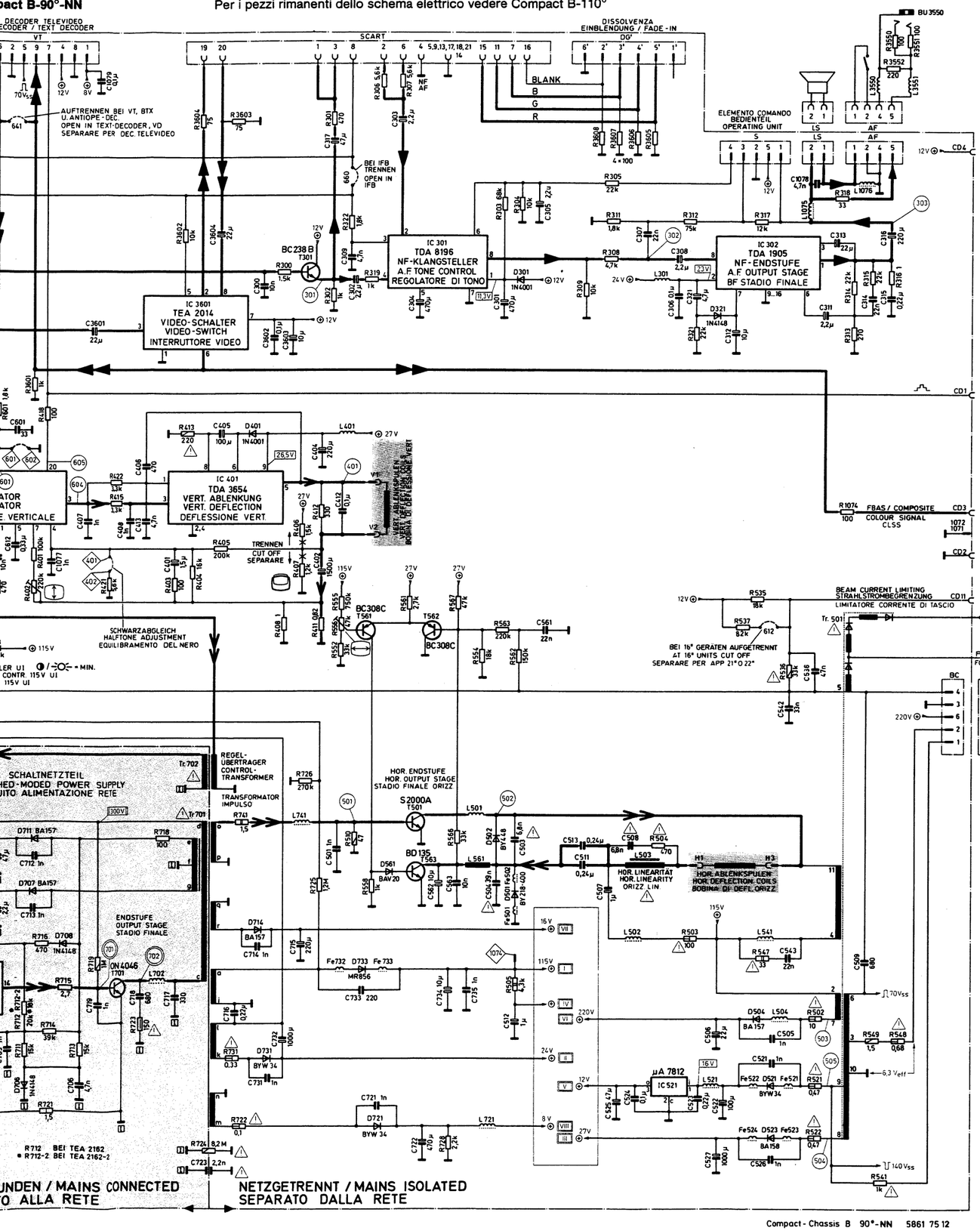
**Schaltbildausschnitt vom Chassis Compact B-90°-NN**
**Circuit diagram extract to Chassis Compact B-90°-NN**
**Extrait du schéma des connexions du châssis Compact B-90°-NN**
**Schema per estratto da «chassis» Compact B-90°-NN**

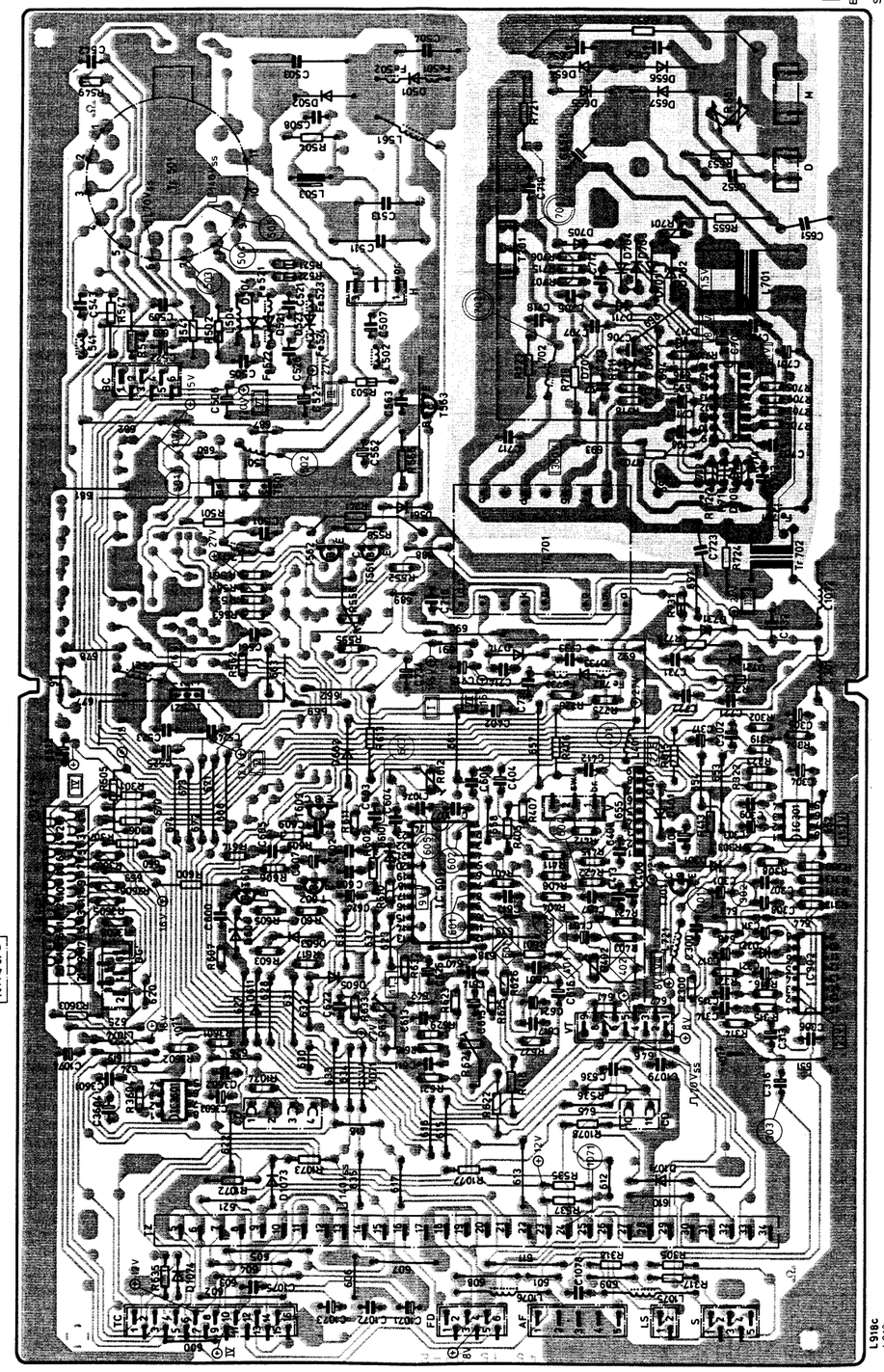


# N

**pact B-90°-NN**
**pact B-90°-NN**
**hâssis Compact B-90°-NN**
**pact B-90°-NN**

Restlichen Teile vom Schaltbild siehe Chassis Compact B-110°
Remainder of circuit diagram – see Compact B-110°
Pour les autres pièces du schéma Compact B-110°
Per i pezzi rimanenti dello schema elettrico vedere Compact B-110°

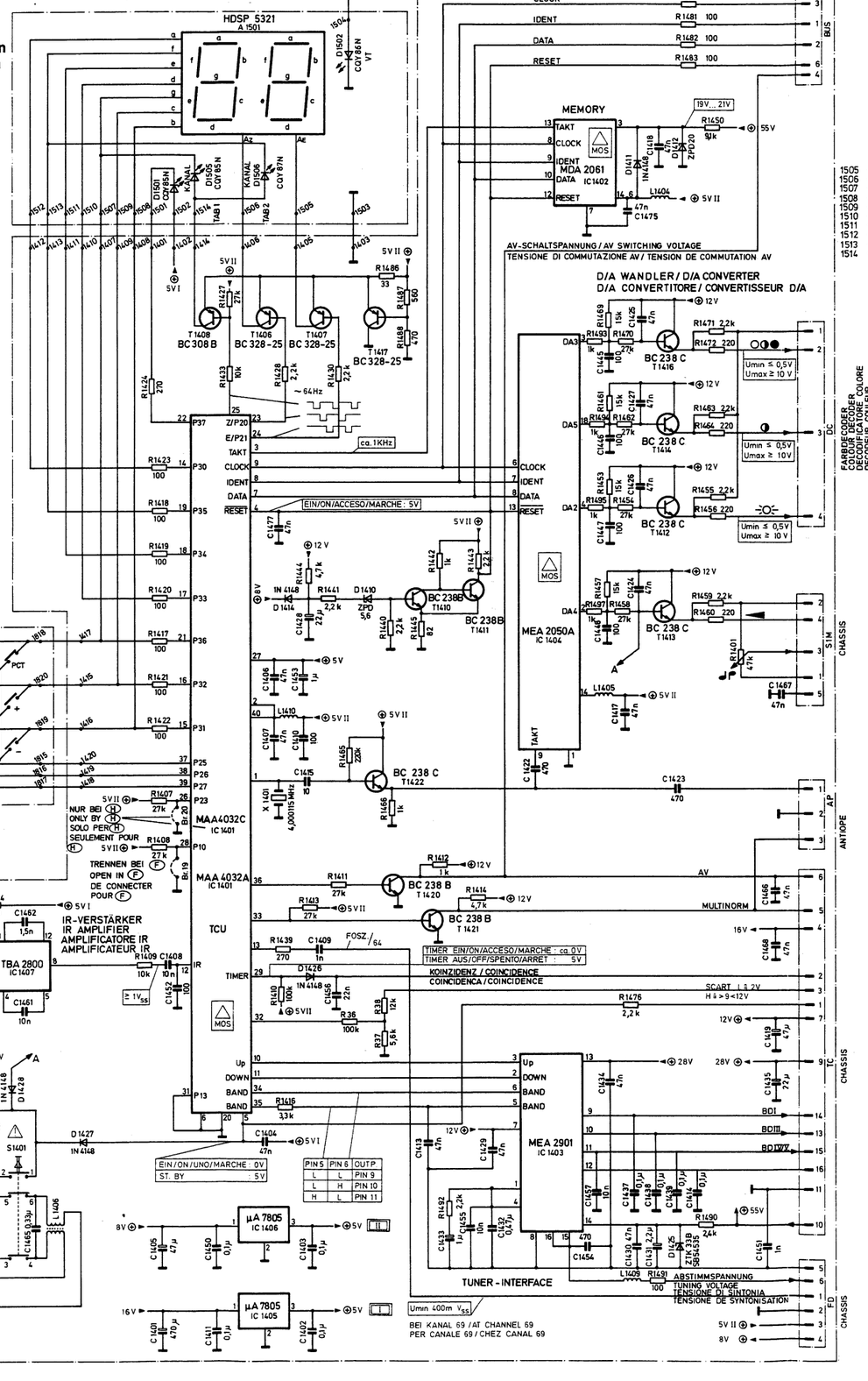



Compact - Chassis B 90°-NN 5861 75 12

# IR-Empfänger, IFB 491 5883 14 45 (D/F)
# IR receiver, IFB 491 5883 14 70 (H)
# Recepteur IR, TCI 491
# Ricevitore comando IR, IFB 491

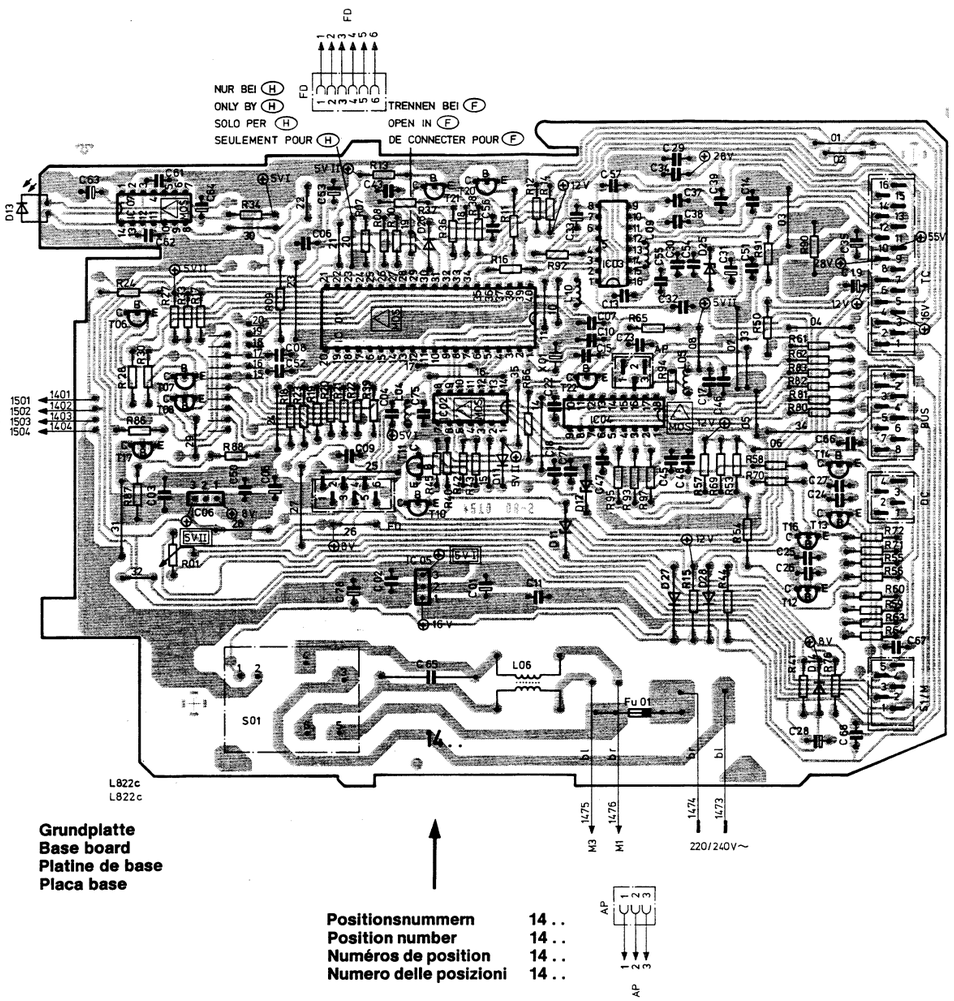
**Anzeigeplatte**
**Indicator board**
**Platine indication**
**Placa indicadora**




**Programmplatte**
**Program board**
**Platine de programme**
**Placa de programa**

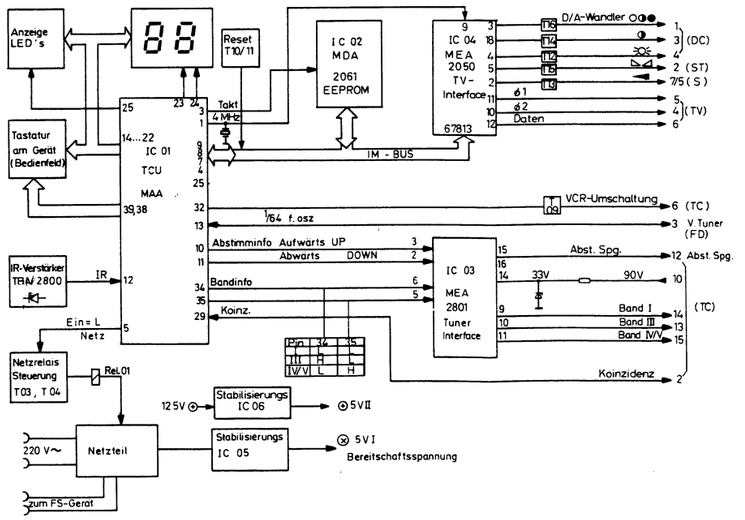
**Grundplatte**
**Base board**
**Platine de base**
**Placa base**

L801 c
L801 c



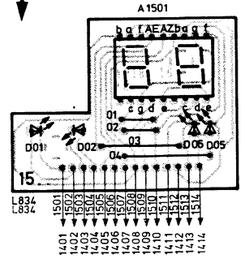

**Grundplatte**
**Base board**
**Platine de base**
**Placa base**

**Positionsnummern** 14 . .
**Position number** 14 . .
**Numéros de position** 14 . .
**Numero delle posizioni** 14 . .




**Blockschaltbild,**
**Circuit diagram,**
**Schema elettrico prospettico,**

**Positionsnummern** 15 . .
**Position number** 15 . .
**Numéros de position** 15 . .
**Numero delle posizioni** 15 . .




**Anzeigeplatte**
**Indicator board**
**Platine indication**
**Piastra annunzio**